



South Powers Extension

Planning and Environmental Linkages Study



November **2024**



South Powers Extension PEL Study Participants

The following participants were instrumental in guiding and preparing the South Powers Extension (SPE) Planning and Environmental Linkages (PEL) Study and Access Control Plan (ACP). Letters of support were collected from organizations involved with the project and included in **Appendix A - Letters of Support of this report**.

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Acronyms:

ACP – Access Control Plan

AADT – Average Annual Daily Traffic

CDOT – Colorado Department of Transportation

CDOT DTR – Colorado Department of Transportation:
Division of Transit & Rail

CDOT EPB – Colorado Department of Transportation:
Environmental Programs Branch

CDPHE – Colorado Department of Public Health and
Environment

EOT – Executive Oversight Team

FHWA – Federal Highway Administration

FRPR – Front Range Passenger Rail

GHG – Greenhouse Gas

I-25 – Interstate 25

MP – Mile Post

NEPA – National Environmental Policy Act

ODP – Overall Development Plan

PEL – Planning and Environmental Linkages

PMT – Project Management Team

PPACG – Pike Peak Area Council of Governments

PUGA – Planned Urban Growth Area

SPE – South Powers Extension

SPF – Safety Performance Functions

TAZs – Traffic Analysis Zones

TDM – Travel Demand Model

TT – Technical Team

U.S. – United States

VHT – Vehicle hours traveled

VMT – Vehicle miles traveled

VOC – Volatile organic compound

Abbreviations:

City of Colorado Springs – Colorado Springs

City of Fountain – Fountain

Mesa Ridge Parkway/CO 16 – Mesa Ridge Parkway

Powers Boulevard/CO 21 – Powers Boulevard

City of Pueblo – Pueblo

Santa Fe Avenue /US 85 – US 85



Letters of Support

Local agencies engaged during the Planning and Environmental Linkages (PEL) Study for the South Powers Extension (SPE) expressed their endorsement through Letters of Support (**Appendix A**). The Federal Highway Administration (FHWA) and Colorado Department of Transportation (CDOT) agree that this PEL Study complies with the FHWA PEL process, as they received notification and updates on the PEL Study through a series of four coordination points (**Appendix B**). The Project Management Team (PMT) has submitted the FHWA PEL Questionnaire (**Appendix C**) to demonstrate compliance with this process. Resource agencies with jurisdiction along the proposed South Powers Extension Corridor (Corridor) were provided an opportunity to comment on the documentation throughout the PEL Study process. Agencies have expressed their willingness to provide feedback and comment on future environmental documentation associated with specific resources. Recommended alignments from the PEL Study would most likely be phased as funding is identified.



Introduction

- **PEL Study Process**
- **Study Area**
- **Project Communication**
- **Reason and Vision**

1. Introduction

El Paso County, in coordination with the Colorado Department of Transportation (CDOT) and Federal Highway Administration (FHWA), prepared a Planning and Environmental Linkages (PEL) Study and Access Control Plan (ACP) for the southern extension of Powers Boulevard/CO 21 (Powers Boulevard), connecting to Interstate 25 (I-25) (**Figure 1**). The roadway extension and connection to I-25 is a critically needed transportation corridor for El Paso County and the greater City of Colorado Springs (Colorado Springs) area. It would provide additional connections between Colorado Springs, the City of Fountain (Fountain), and I-25. The PEL Study addresses an understanding of transportation problems in the region, a collaboratively developed vision for the future, and potential projects to implement that vision. El Paso County initiated this PEL Study after a long history of planning and research into the ultimate development of the South Powers Extension (SPE). El Paso County and regional stakeholders were in need of a clear vision and corridor preservation footprint to accelerate the future southern extension. Close coordination with Fountain, Colorado Springs, El Paso County, and CDOT throughout the PEL Study process was essential to developing an actionable and shared vision for the Corridor.

Since 1963, Powers Boulevard has been planned as a bypass for I-25 along the eastern edge of Colorado Springs. As one of Colorado's 28 strategic corridors and a vital element of the National Highway System, Powers Boulevard is critical in supporting local, regional, and national mobility. Powers Boulevard is also a crucial component of the Pikes Peak Area Council of Governments (PPACG) Region's Congestion Management Plan, and also provides access to five major military installations and the Colorado Springs Municipal Airport. The southern extension and ultimate completion of Powers Boulevard would create a major north-south throughfare for the rapidly developing community.



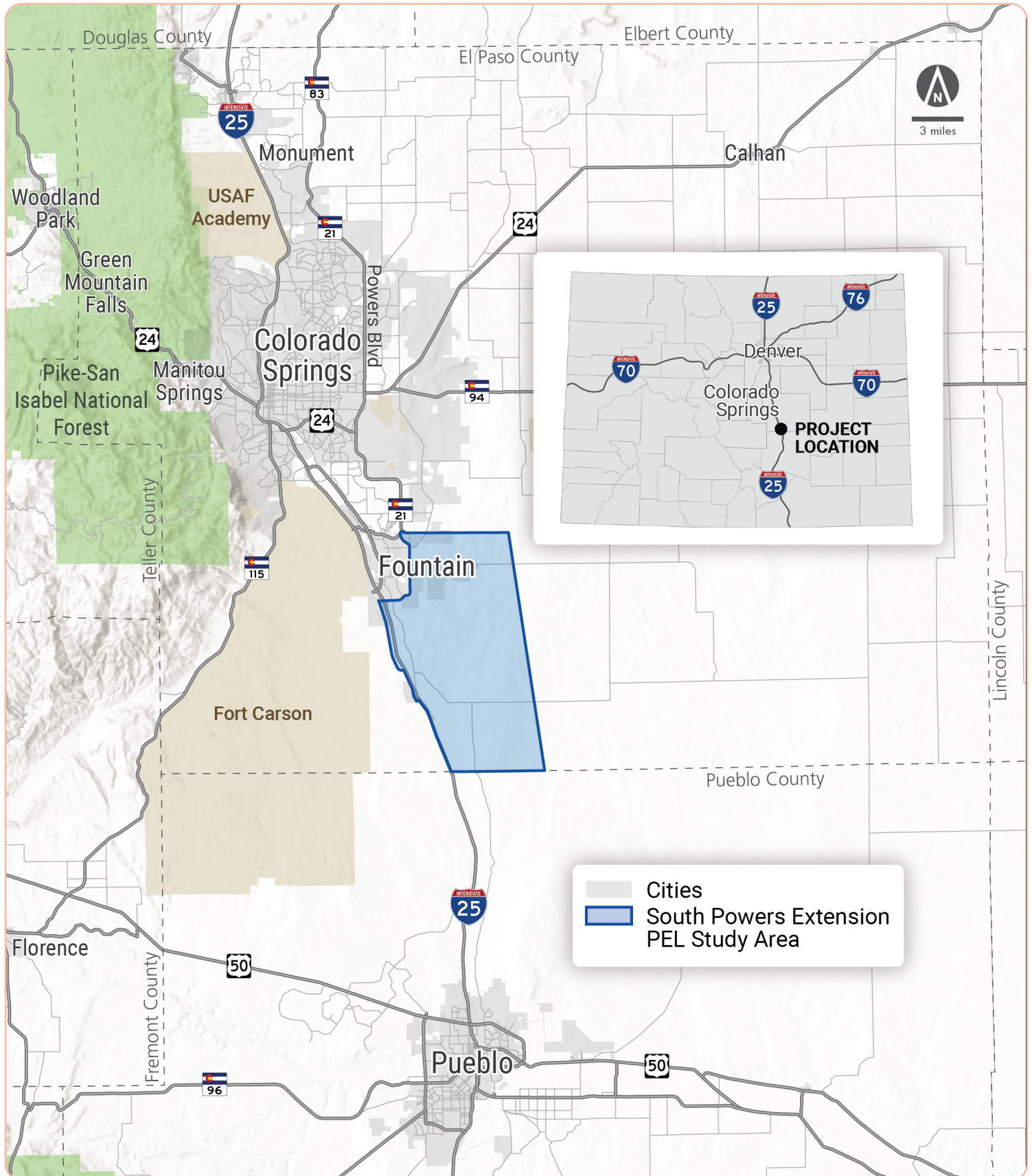
What is Mobility?

Mobility is the efficient movement of people, goods, and services with little to no difficulty using reliable transportation options.



Introduction

Figure 1. Regional Context Map





1.1 - The Planning and Environmental Linkages Study Process

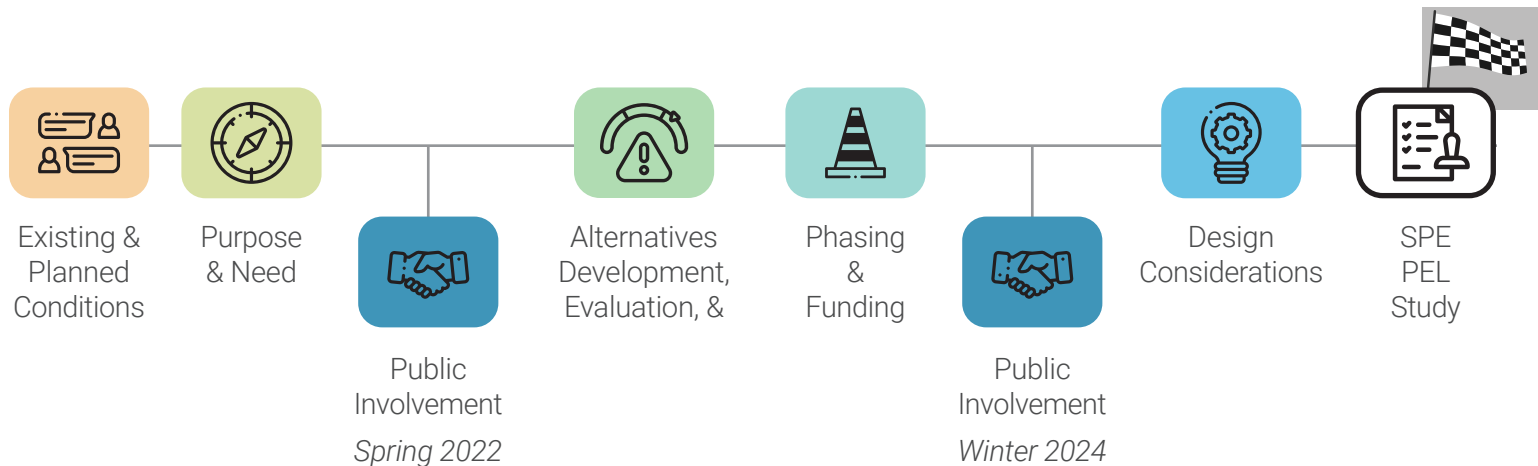
An increase in congestion and a lack of transportation options in southeastern Colorado Springs and Fountain spurred local agencies, El Paso County, and CDOT to develop a PEL along with an ACP. The PEL was developed in conjunction with the ACP but are two separate documents.

PEL Studies are a FHWA initiative, created to support transportation decision-makers early in the planning process when considering environmental, community, and economic goals. Using a PEL Study can streamline the National Environmental Policy Act (NEPA) process for future transportation projects (FHWA, 2015).

There are four required coordination points with FHWA (**Appendix B**) at the following milestones of the PEL Study process:

1. Determining the Reason for the PEL Study (Completed 6/2/22)
2. Purpose and Need (Completed 1/4/23)
3. Alternatives Development and Evaluation (Completed 10/12/23)
4. PEL Document (Completed 2025)

The FHWA PEL Questionnaire (**Appendix C**) has also been completed to demonstrate compliance with this process. The process that was followed for this PEL Study is shown through the graphic below.



A PEL Study is a flexible process to make planning decisions and used for planning analysis. These decisions and analyses can be used to develop the Purpose and Need for a project, determine project size or length, develop and refine a range of alternatives, and/or identify and prioritize future projects. Stakeholders and other project members developed a corridor vision and Purpose and Need, which lead to the development of recommended transportation alternatives that reflect the needs and goals.

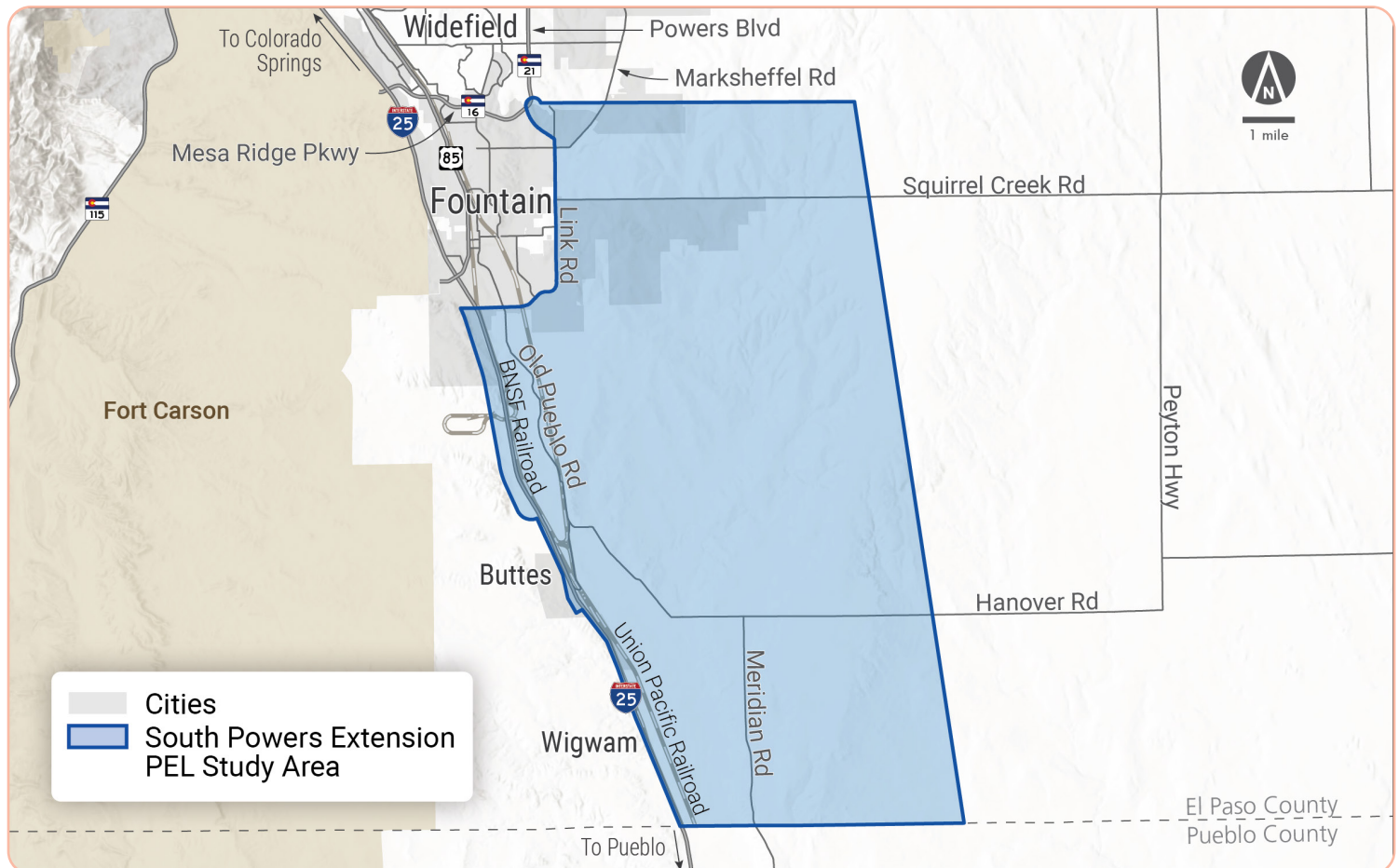


1.2 - Study Area Location and Description

The PEL Study and ACP focuses on an extension of Powers Boulevard from Mesa Ridge Parkway/CO 16 (Mesa Ridge Parkway) to I-25. The Study Area (**Figure 2**) is within El Paso County, but it is likely that a portion will be incorporated into Fountain or Colorado Springs due to growth in the area. It is anticipated that the SPE would begin as a locally owned road, and CDOT would eventually maintain it as a state highway.

The Study Area begins at the intersection of Mesa Ridge Parkway and Powers Boulevard and extends south to the El Paso/Pueblo County Line. The Study Area boundaries were determined based on a combination of previous planning documents, the feasibility of having an alternate route parallel to I-25, military base properties, and county boundary lines. To the north, the Study Area is constrained by existing development. To the east, it is bound by I-25 and Fort Carson but extends west to allow for a potential alignment that could avoid existing developments, utilities, and solar farms.

Figure 2. PEL Study Area





1.3 - Project Communications Structure

The Project Management Team (PMT) and FHWA were committed to involving federal, state, and local agencies and the public throughout the PEL process. Local agency involvement was prioritized throughout the PEL Study process and feedback was solicited from the public at key decision points to help support corridor recommendations. The communication structure allowed for fluid conversation and information sharing between all participants of the PEL Study.

Executive Oversight Team (EOT)

The EOT were Briefed quarterly throughout each year by the PMT to keep them informed on the project's progress. The PMT and TT were responsible for making the elected official aware of issues that may include funding and grant opportunities. Their understanding and support of the vision for the corridor was instrumental during the PEL Study process.

Technical Team (TT)

The TT were responsible for making project recommendations that are supported by their respective agencies and provided input to the PMT on critical issues. Meetings were held to communicate what information would be presented and any decisions that needed to be made. These meetings helped TT members send important information to appropriate staff, if needed. The TT's responsibility was informing EOT of PEL Study Updates.

Project Management Team (PMT)

The PMT were responsible for making project decisions and monitored the scope/schedule to keep the project moving in the right direction. The PMT reviewed all the information before it was presented to the TT, EOT, stakeholders and the public.

Project Stakeholders

The stakeholders were updated at important milestones identified by the PMT. Understanding the pressure of competing land uses, new developments and annexations, and differing community objectives helped define the needs and priorities along the Corridor. Members of the PMT met with local landowners to understand their concerns and how improvements could accommodate and support their safety, mobility, resiliency, access, land use, and aesthetic goal.



Public Engagement

In order to engage the public and keep them informed throughout the PEL Study, the PMT used the following tools and methods in addition to standard public meeting practices:

- Two virtual open houses
- Stakeholder database
- Phone hotline and mailing
- Spanish translations
- E-newsletters
- Postcards



1.4 - Reason & Vision

At the beginning of the PEL Study, the TT defined the reason for the PEL, and the vision for the Corridor's future. Together they determined that:

- The *reason* for conducting this PEL Study is to build upon previous planning documents to identify a SPE alignment. It would support El Paso County and the local agencies, stakeholders, and the public to determine future improvements. This PEL Study would identify corridor preservation needs and would provide a framework for the short and long-term implementation of **multimodal** transportation improvements. As funding becomes available the PEL would be used as the foundation for future NEPA documentation.
- The *vision* for the PEL Study is to develop a resilient facility that improves safety, connectivity, and travel time reliability. The proposed SPE is intended to provide **connectivity** for all modes of transportation with an emphasis on implementing innovative infrastructure practices.



What is Multimodal?

The availability to use a variety of different modes of transportation for travel.

What is Connectivity?

Transportation connectivity refers to the ability to travel between destinations safely, reliably, and conveniently.



CO 21 at Mesa Ridge Parkway



Existing & Planned Conditions

- PEL Study Process
- Planning Context
- Transportation Context
- Environmental Context

2. Existing and Planned Conditions

The PEL Study process included a review of the existing conditions within and adjacent to the Study Area which were documented in an Existing Conditions Report (**Appendix D**). There were three main categories developed to provide vital context on existing conditions of the Corridor – planning, transportation, and environmental.

As part of the PEL Study process, planned future conditions were also considered to fully understand the characteristics of this growing region.

2.1 - Planning Context

The PMT reviewed existing plans in the region, including those created by El Paso County, Fountain, Colorado Springs, the United States (U.S.) Military, CDOT, and PPACG. This was a crucial step to better understand what was important to each community and to acknowledge future Corridor plans. This also helped the PMT determine how potential SPE alignments may be compatible with or contradict these existing plans.

Regional Planning Documents

PPACG Regional Congestion Management Plan: Powers Boulevard is designated as a major north-south thoroughfare for authorized development along the eastern edges of Colorado Springs and Fountain. This is key because the PPACG serves as the lead agency for transportation planning in the region. Including Powers Boulevard in the Regional CMP indicates its importance in reducing congestion and facilitating regional mobility.

The CMP often outlines corridors that require special attention due to their role in mobility and congestion management. Powers Boulevard's inclusion signifies its critical role in the local and regional transportation network, fostering efficient movement of people and goods, which is essential for economic development in the surrounding areas.

PPACG Regional Transportation Plan: The PPACG recognizes the SPE as a critical component of the regional transportation system. This extension is designed to connect with Powers Boulevard, enhancing its capacity and accessibility. The inclusion of SPE within regional transportation plans aligns with the goal of improving traffic flow and addressing the rapidly expanding growth in the eastern Colorado Springs and Fountain areas.



CDOT - Statewide Transportation Plan: Powers Boulevard (and its extension, the SPE) is highlighted in the Statewide Transportation Plan, specifically in Appendix E: Corridor Profiles. CDOT's recognition of Powers Boulevard in this statewide context further emphasizes its importance as a safety and mobility project, which meets the goals of the statewide plan.

Local Agency Plans

Within the Study Area, several local plans and corridor, regional, and local-level studies have previously been completed that informed the PEL Study process, which includes the following:

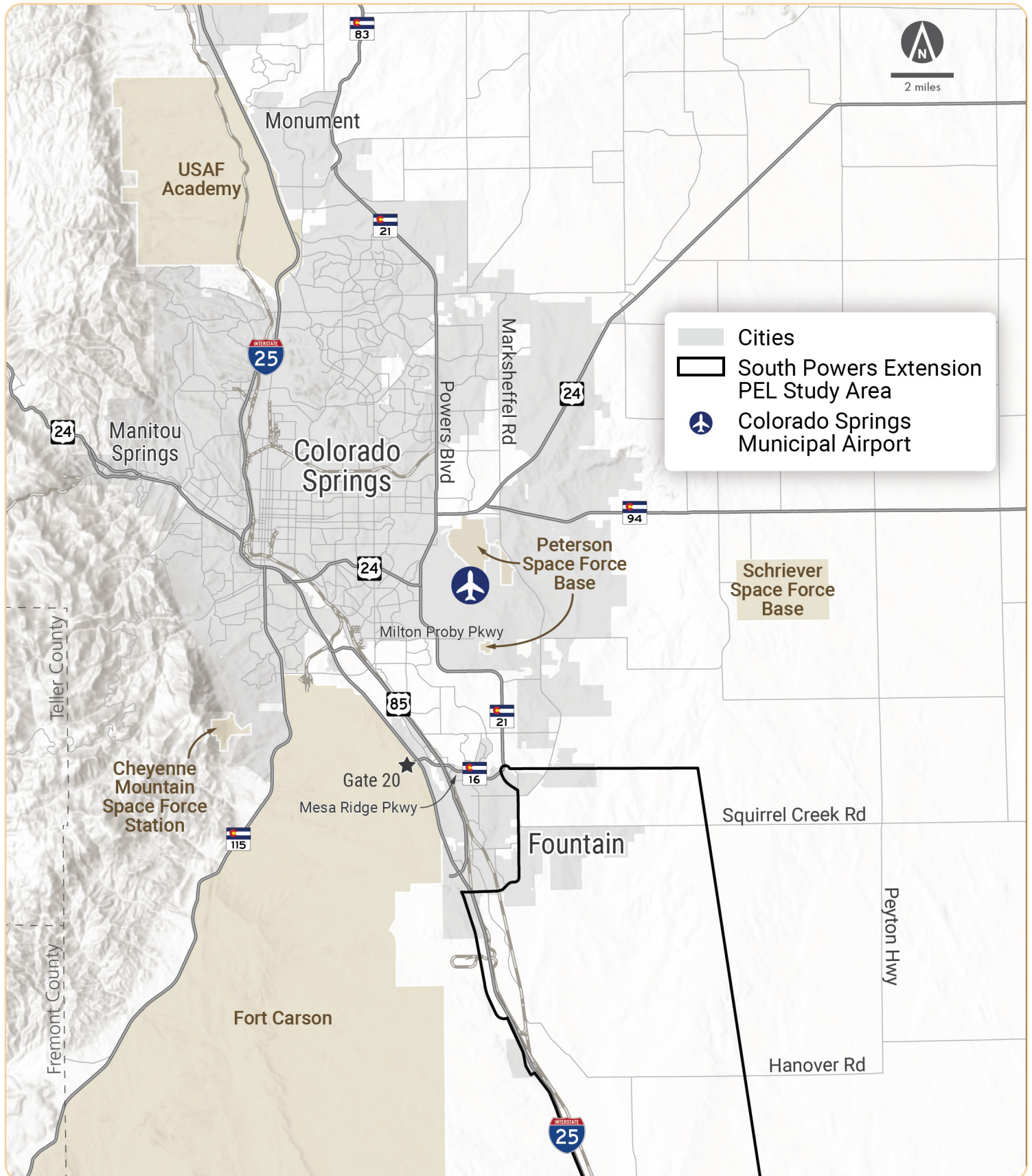
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- Pikes Peak Area Council of Governments, Moving Forward 2045: Pikes Peak Area Regional Transportation Plan, January 8, 2020.
- Peak Area Council of Governments, 2045 Regional Transportation Plan – Transit: Mountain Metropolitan Transit, January 8, 2020.
- City of Fountain, City of Fountain Comprehensive Development Plan 2005, August 9, 2005, amended 2017.
- City of Fountain, City of Fountain Annexation Plan, November 13, 2007, amended December 2009.
- City of Fountain, City of Fountain Parks, Recreation, Open Space and Trails Master Plan, May 26, 2015.
- City of Fountain, Transportation Master Plan 2022, February 22, 2022.
- El Paso County, El Paso County Major Transportation Corridors Plan Update (MTCP), December 6, 2016.
- El Paso County, Your El Paso Master Plan, May 26, 2021.
- El Paso County, Department of Public Works, El Paso County Road Safety Plan, 2022.
- El Paso County Planning Department, El Paso County Zoning Map Book, accessed November 2022.
- City of Colorado Springs, ConnectCOS: Transportation Plan for a Mobile Community, March 2023.
- City of Colorado Springs, PlanCOS: Leading the Way to Our Future: Comprehensive Plan, January 2019.
- City of Colorado Springs, Parks, Recreation, Trails, Open Space & Cultural Services, City of Colorado Springs Park System Master Plan, September 14, 2014.

Military Facilities

The military serves as a major stakeholder in the region, as well as a major stakeholder for this PEL Study. For these reasons, the local military installations were considered resource agencies for this PEL Study process and were provided opportunities to review the Existing Conditions Report, as well as the final recommendation. Installations involved in the PEL Study included: U.S. Air Force Academy, Peterson Space Force Base, Schriever Space Force Base, Fort Carson and Cheyenne Mountain Space Force Station shown in **Figure 3**. Powers Boulevard provides key access to these five military installations. Additionally, Colorado Springs Municipal Airport and Peterson Space Force Base jointly use a single airfield, lending even greater importance on accessing Powers Boulevard and US 24, as well as Milton Proby Parkway (via Powers Boulevard) and Marksheffel Road (via US 24/CO 94/CO 16).



Figure 3. Map of Military Facilities





2.1.1 - Existing and Planned Community Characteristics

Taking community characteristics into consideration allows for the incorporation of existing current and future planned demographics and development in the region. This allows for a thoughtful and forward-thinking approach while understanding the existing conditions and expectations of the community's future. The PMT considered community characteristics including land use, population/housing density, and employment density during the analysis. This was due to each characteristic being closely aligned with growth in travel and subsequent travel demand of the roadway.

Land Use

Existing and future land uses were evaluated to further understand the conditions within the Study Area (**Figure 4**). Existing land use is predominately rural development including large estates, former/working cattle and horse ranches/associated grazing land, and open space.

El Paso County, Colorado Springs, and Fountain came together in the mid-1980s to identify a Planned Urban Growth Area (PUGA), to document the future land use that supports the region's shared vision. The SPE is envisioned as the future home of suburban mixed-use development, regardless of the jurisdiction in which development would occur. El Paso County has identified the development plans, which are approved or underway, for the Almagre, Amara, Mesa Ridge, Southern Colorado Dual Service Rail Park, and Kane Ranch properties:

1. Almagre Development:

Location: The Almagre development is situated on the northern and eastern edge of Fountain, near the South Powers Boulevard Corridor.

Development Plans: The Almagre development is focused on residential and commercial growth, with plans to provide a mix of single-family homes, multi-family units, and potential retail and commercial spaces. The Almagre development is planned to accommodate approximately 2,000 households. This development is part of a broader effort to expand the urban footprint of Fountain toward the east, leveraging its proximity to major transportation routes like South Powers Boulevard. The Almagre development aims to create a sustainable community with infrastructure improvements and services that support the increasing population in the area.

Key Features: The Almagre development is expected to feature modern amenities such as parks, schools, and pedestrian-friendly pathways, fostering a live-work-play environment. It is also likely to include green spaces and environmentally conscious design elements, contributing to the overall livability of the area.

2. Amara Development:

Location: The Amara development is a large, master-planned community located on the northern boundary of Fountain, primarily near the intersection of Marksheffel Road and Mesa Ridge Parkway.

Development Plans: The Amara development includes both residential and commercial elements. The Amara development is planning for approximately 9,500 total households. It is designed to create a vibrant, mixed-use neighborhood with a focus on community-centric living. The residential components are expected to consist of a variety of housing types, including townhomes, apartments, and single-family homes, catering to a diverse range of residents.

Key Features: The Amara development aims to integrate commercial spaces, including retail centers and offices, to provide convenient amenities for residents. The Amara development is also focusing on enhancing transportation options and infrastructure, including roads, pedestrian paths, and public transit access, promoting easy connectivity to surrounding areas, including South Powers Boulevard.



3. Mesa Ridge Development:

Location: The Mesa Ridge development is situated in the northern portion of Fountain, near the intersection of Mesa Ridge Parkway and Powers Boulevard.

Development Plans: The Mesa Ridge development is a large-scale residential and mixed-use development that has been planned to cater to the growing population in Fountain. The Mesa Ridge development intends to include several phases, with a combination of residential homes, commercial spaces, and amenities designed to support the increasing demand for housing and services in the area.

Key Features: The Mesa Ridge development plan includes amenities such as schools, parks, retail spaces, and recreational areas. It is also designed with an emphasis on accessibility, with easy connections to major roads and highways, including I-25, making it an attractive location for both residents and businesses.

4. Southern Colorado Dual Service Rail Park:

Location: The Southern Colorado Dual Service Rail Park is located in west Fountain, just south of Colorado Springs, and is situated near key rail lines and major transportation routes.

Development Plans: The Southern Colorado Dual Service Rail Park is intended as a major industrial and commercial development focused on rail transportation, catering to businesses that require access to dual-service rail systems (both freight and passenger services). The Southern Colorado Dual Service Rail Park is being designed to accommodate large-scale industrial operations, distribution centers, and logistics companies, taking advantage of rail connectivity to facilitate the movement of goods.

Key Features: The Southern Colorado Dual Service Rail Park is set to feature industrial and business facilities with direct access to rail lines, creating a hub for the movement and distribution of goods in the region. The Southern Colorado Dual Service Rail Park is expected to create jobs and support the region's economic growth by attracting industries that rely on rail transportation for efficiency.

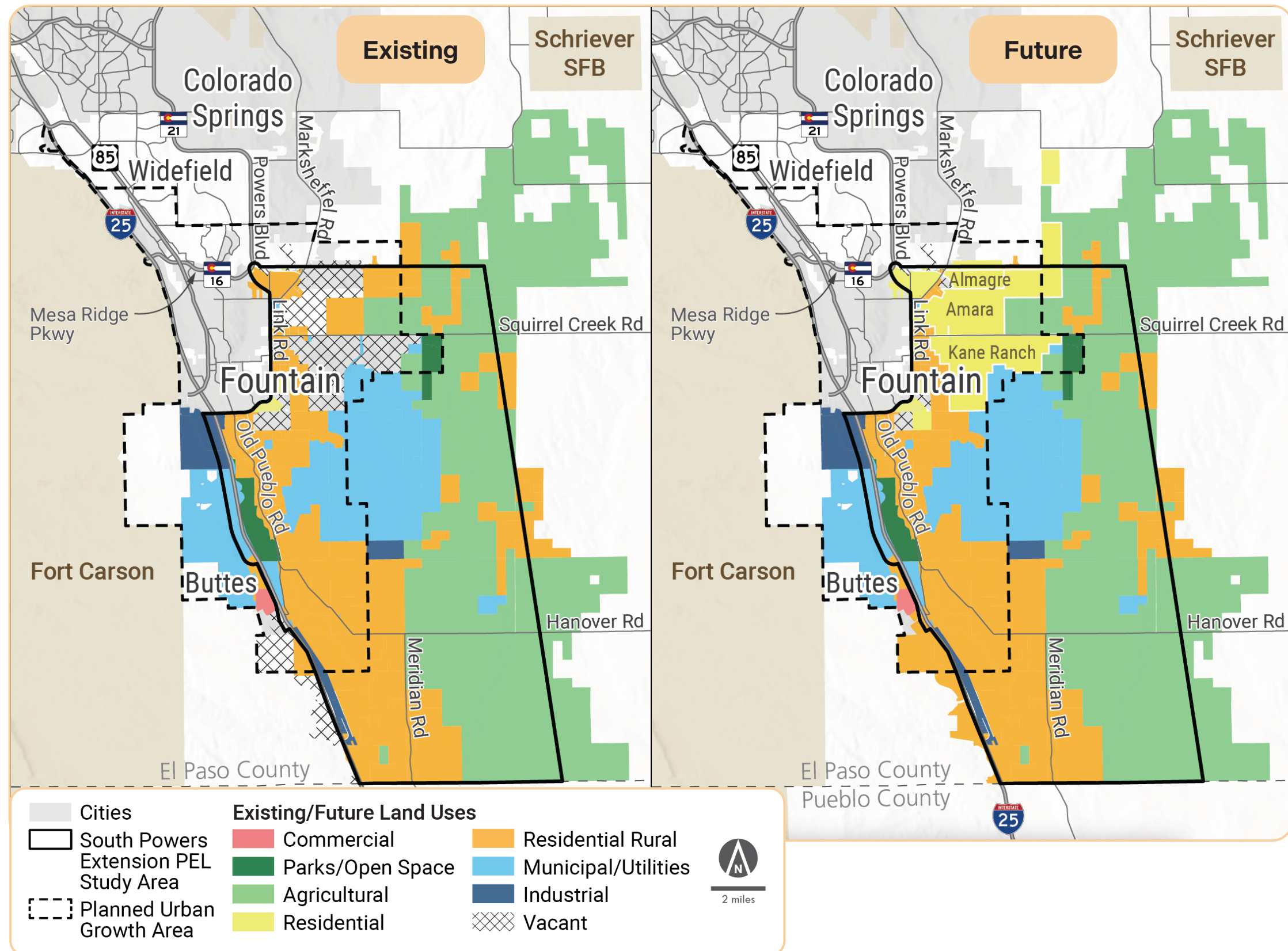
5. Kane Ranch Development:

Location: The Kane Ranch Development is located on the eastern edge of Fountain, close to the intersection of South Powers Boulevard and Squirrel Creek Road.

Development Plans: The Kane Ranch development is planned for a mixed-use development that is likely to include residential, commercial, and industrial components. The Kane Ranch development is planned to accommodate approximately 2,000 households. The Kane Ranch Development is located is set to benefit from its strategic location along major transportation corridors, including Powers Boulevard, providing easy access to both local and regional markets.

Key Features: The Kane Ranch Development is located is envisioned as a development that intends to blend residential neighborhoods with retail and commercial establishments. It is expected to include homes, shops, and office spaces, contributing to the overall expansion of the southeastern Colorado Springs area. The Kane Ranch Development is located is being designed to integrate with the existing infrastructure, including roadways and utilities, and is envisioned to offer various amenities to enhance the quality of life for future residents.

Figure 4. Comparison of Existing and Future Land Uses





Population/Household Unit Density

The 2020 U.S. Census population count for El Paso County was 730,395 people, an increase of 100,000 since the 2010 Census. In 2022, El Paso County was the most populous county in the state of Colorado with a population estimate of 745,345 and an annual growth rate of 1.13 percent.



What is Population Density?

Population density refers to the measurement of people per unit of area, typically expressed as square mile or acre.

El Paso County has an average density of 350 people per square mile. Within the Study Area, population density ranges from areas of less than 250 people per square mile to areas of 2,500 to 5,000 people per acre. El Paso County has 12.2 percent of household units within Colorado. The current infrastructure for this region is limited in supporting the population/household density of El Paso County as north-south travel is heavily reliant on I-25 and east-west requires out-of- direction travel.



What is Household Density?

Household density specifically measures the number of households within a specified area.

What is Traffic Analysis Zones (TAZs)?

Traffic Analysis Zones (TAZs) are geographic areas used to analyze employment and household data,, usually consisting of one or more census tracts.

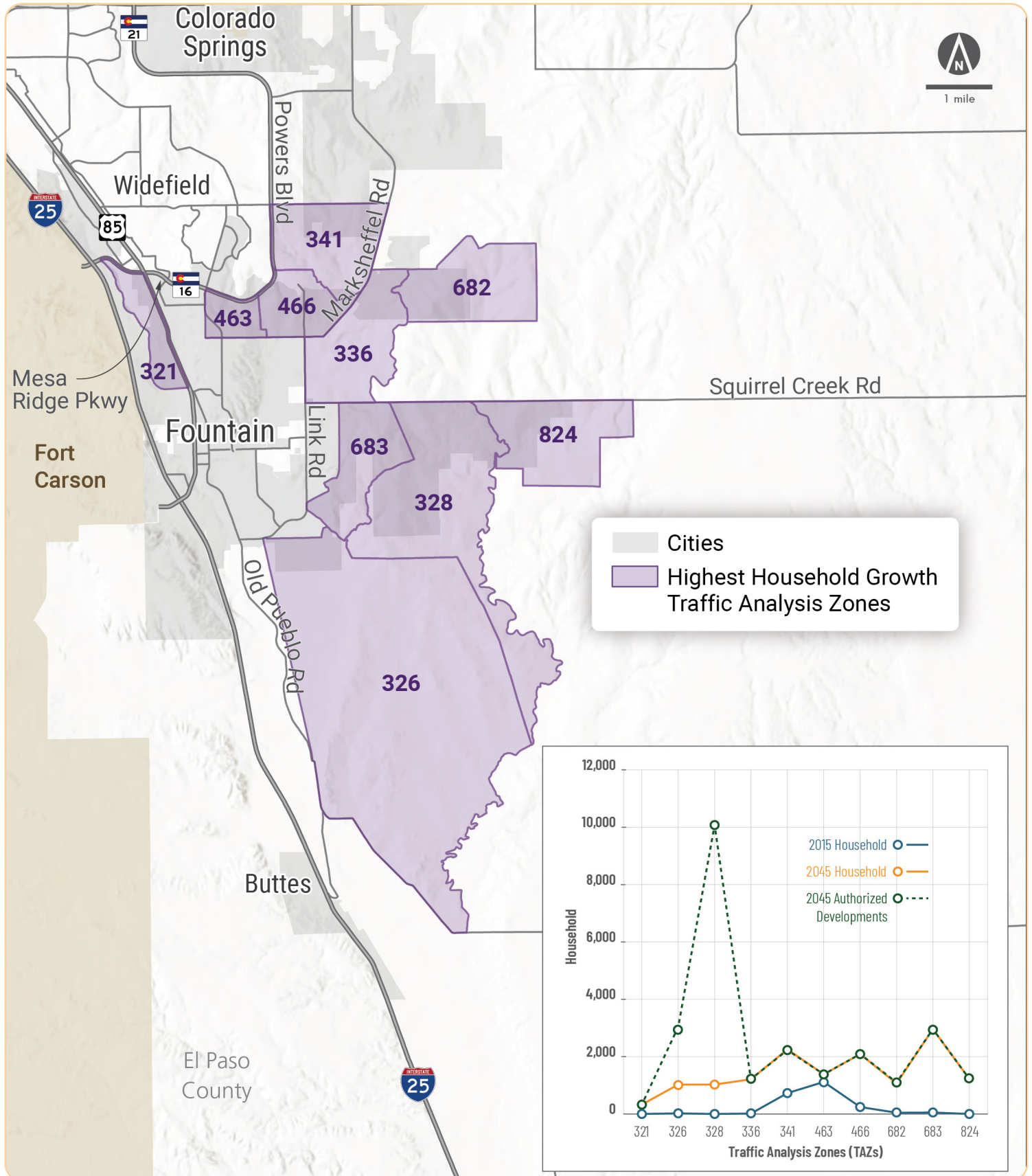
To understand the future conditions of the region, TAZs were used to analyze growth areas for the PEL Study. The top ten TAZ growth areas for households in the region are numbered and shown in **Figure 5**. Two growth scenarios were evaluated:

1. The first scenario was based on adopted PPACG estimates (2015) and forecasts (2045).
2. The second scenario was based on adopted 2045 PPACG forecasts with proposed authorized developments that were not incorporated in the PPACG 2045 forecasts (**Figure 5**).

Authorized developments are developments that are proposed and approved by the jurisdiction but are not included in PPACG forecasts. These developments mainly affect TAZ 326 and 328. In the line graph below, TAZ 326 is expected to increase by over 3,000 households and TAZ 328 is expected to increase by 10,000 households. The eight remaining TAZs show an increase in households between the existing 2015 households, but do not show an increase in households between the 2045 PPACG estimates and 2045 authorized development forecasts.



Figure 5. Highest Household Growth Traffic Analysis Zones





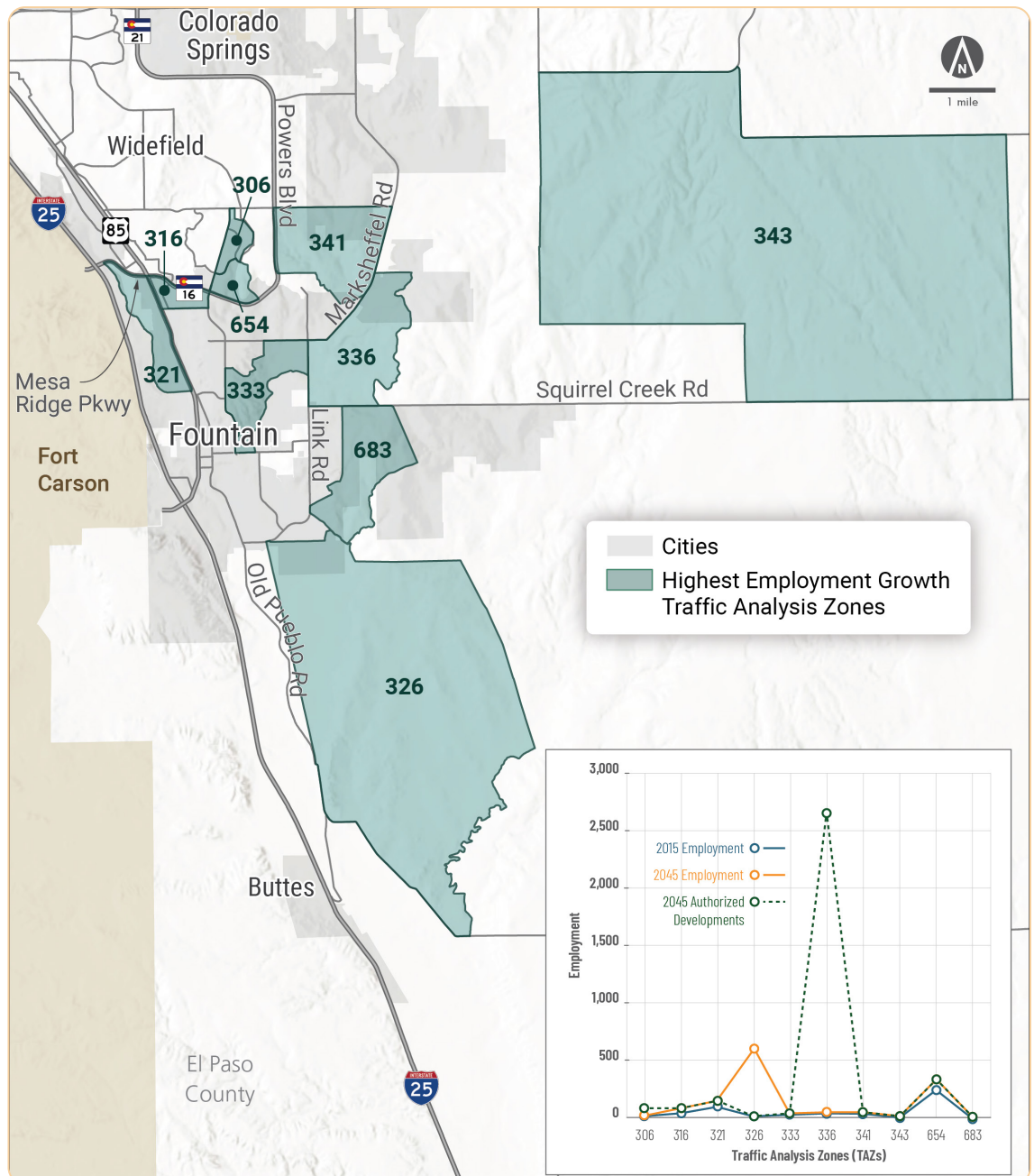
Employment

From the U.S. Bureau of Labor Statistics, El Paso County's employment grew at a faster pace than any other county in Colorado between 2010 and 2020. The average employment density in El Paso County is 350 jobs per square mile, with the highest density employment centers being in the northern portion of the Study Area. Fort Carson is currently the State's largest employer and is located just west of the Study Area.

i What is Employment Density ?
Employment density is the number of employees per square feet of building space and acres of land.

Similar to the household analysis, the two scenarios were analyzed for employment in the region. The forecasted growth in employment between 2015 and 2045 for the ten (TAZs), as shown in **Figure 6** of the PPACG forecast, is an important factor in understanding the broader regional development trends. According to the PPACG, there is expected to be substantial growth in employment, with an estimated 2,903 additional jobs across these TAZs. This job growth is closely tied to the increasing need for residential, commercial, and infrastructure development in the region. Understanding the growth in households and employment is vital for the region to sustain and enhance its economic growth, improve mobility, and maintain a high quality of life for residents.

Figure 6. Highest Employment Growth Traffic Analysis



2.2 - Transportation Context

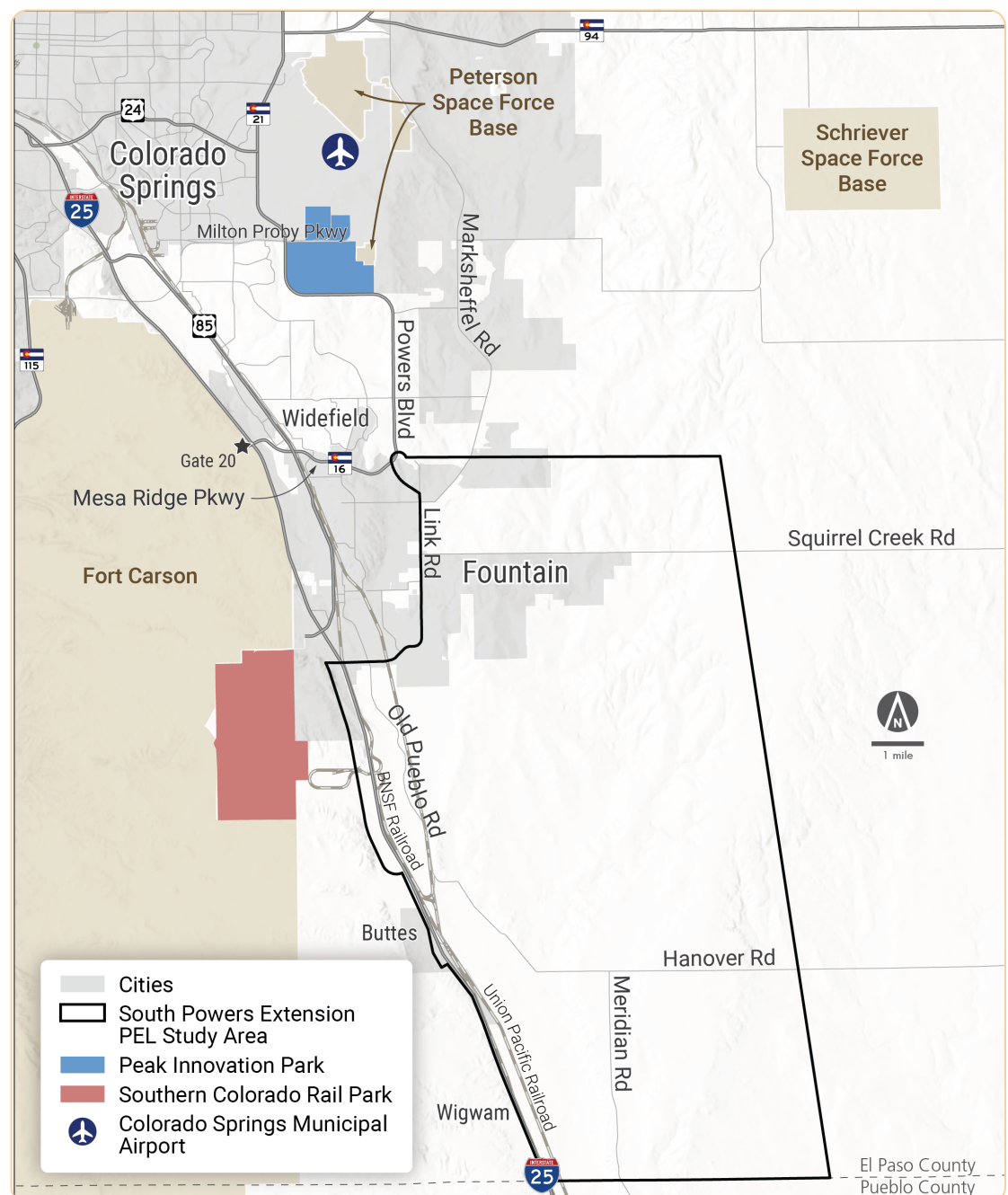
Corridor characteristics were gathered to assess the current transportation conditions within the Study Area, as detailed in **Appendix D – Existing Conditions Report**. Since the completion of the Existing Conditions Report, additional metrics have been modeled to show future conditions without any improvements to the Corridor, also known as the No Action Alternative. Planned transportation facilities within the Study Area were also identified to explore potential network opportunities and multimodal connections. Public and stakeholder outreach efforts helped to identify local priorities and pedestrian mobility needs.

Traffic conditions were modeled using 2015 data and 2045 projections that only includes improvements identified in the PPACG 2045 Regional Transportation Plan (2045 Moving Forward). The 2045 future projection is defined as the No Action Alternative and is discussed further in Section 4.2.

2.2.1 - Existing and Planned Corridor Network

I-25 is the only freeway or major highway providing a continuous north-south route through El Paso County. Mesa Ridge Parkway offers an east-west connection to the existing segment of Powers Boulevard and I-25. Gate 20, located just west of the I-25/Mesa Ridge Parkway interchange, is Fort Carson's busiest access point, handling approximately 20,000 combined inbound and outbound trips daily. Other key roadways in the Study Area that serve military bases, freight hubs, and the COS airport include: Santa Fe Avenue/US 85 (US 85), Marksheffel Road, Link Road, Squirrel Creek Road, and Old Pueblo Road. As illustrated in **Figure 7**, these routes provide limited or incomplete connections among the region's military installations, residential areas, employment centers (Peak Innovation Park) and freight hubs (Southern Colorado Rail Park).

Figure 7. Activity Areas





2.2.2 - Existing and Projected Regional Traffic

Existing traffic operations were assessed for the highway mainline, highway ramps, and unsignalized/signalized intersections (**Appendix E- Traffic Report**). This data was utilized to conduct a comparison between the existing and projected future conditions in the Study Area. The analysis of this information provides a better understanding of anticipated traffic volumes, operational deficiencies, and safety outcomes. This comparative analysis helps identify potential challenges and opportunities for improvement, ultimately guiding informed decision-making for the Alternatives Analysis process.

Regional Traffic Volumes



What is Travel Demand Model (TDM)?

A Travel Demand Model (TDM) is a traffic analysis tool used for analyzing and forecasting traffic volumes to track and predict traffic congestion for the planning and design of infrastructure.

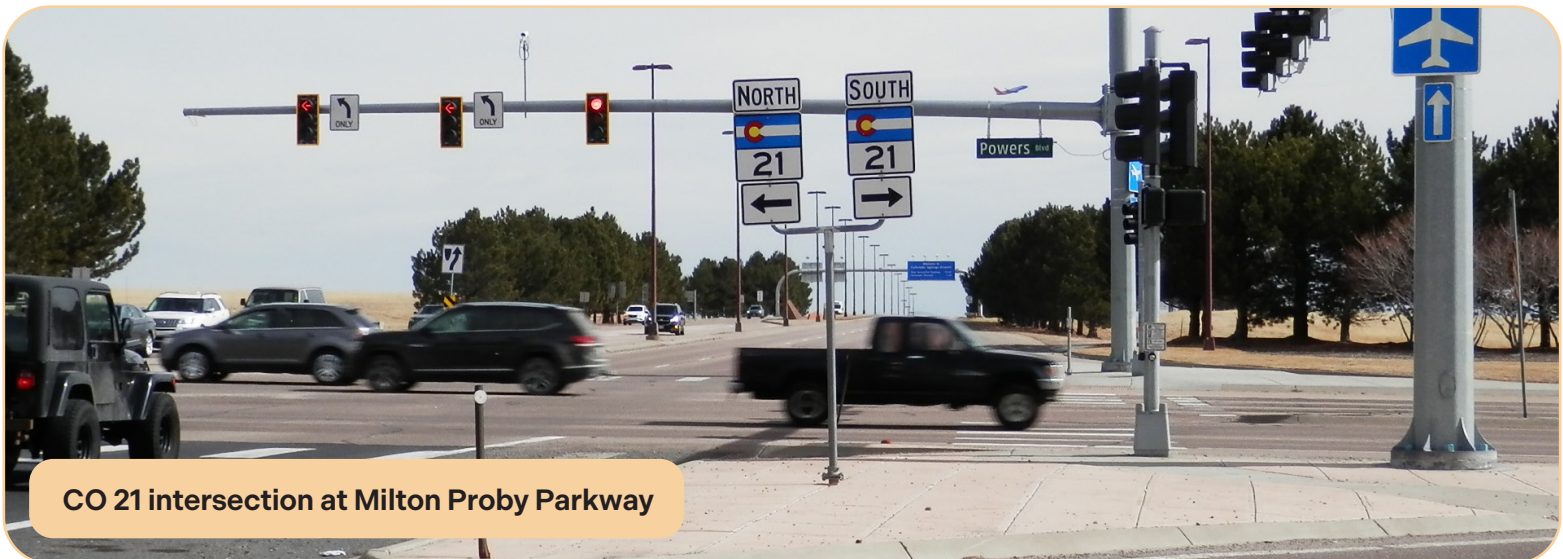
The traffic analysis relies on data related to household and employment numbers within the TAZs outlined earlier. Specifically, this analysis utilizes estimates from PPACG, which project growth in the region. According to these estimates, households and employment numbers are anticipated to double by 2045. This substantial growth exemplifies the need for effective planning to accommodate future transportation demand while promoting safe, efficient travel for all users.



What is Average Annual Daily Traffic (AADT)?

Traffic volumes are measured using the Average Annual Daily Traffic (AADT), which is measured in vehicles per day, or in morning and evening peak volumes measured in vehicles per hour.

Regional traffic models and traffic counts show that congestion along I-25 and the local roadway network are due to Fort Carson employment, the COS airport, the industrial park on Milton Proby Parkway, and commuters between Fountain and Colorado Springs. The 2045 No Action further shows spreading and increased levels of congestion, especially within the area closest to Fountain. **Figures 8 and 9** illustrate a comparison of current daily traffic levels and the projected 2045 No Action Alternative. The routes shown in lighter colors indicate lower AADT volumes, while darker colors indicate progressively higher AADT volumes. Without the SPE improvements, traffic on existing roadways is expected to increase by 30 percent by 2045.



CO 21 intersection at Milton Proby Parkway



Figure 8. Existing AADT

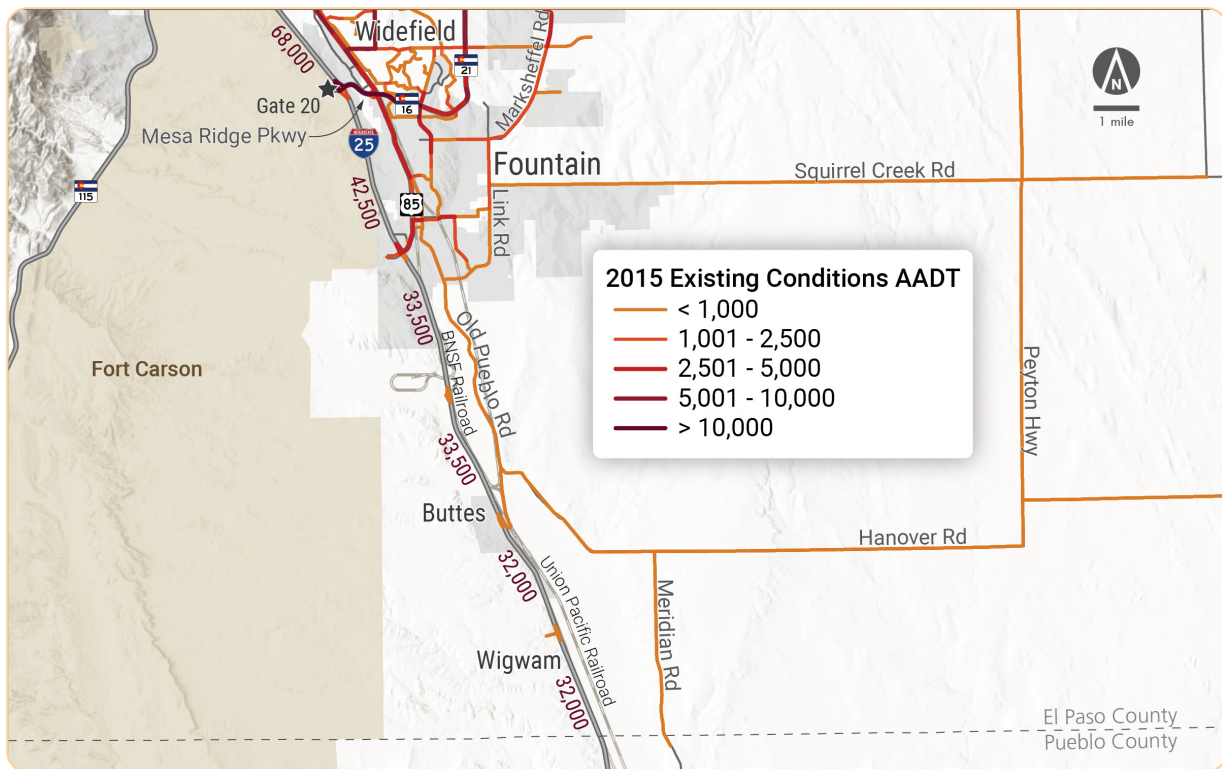
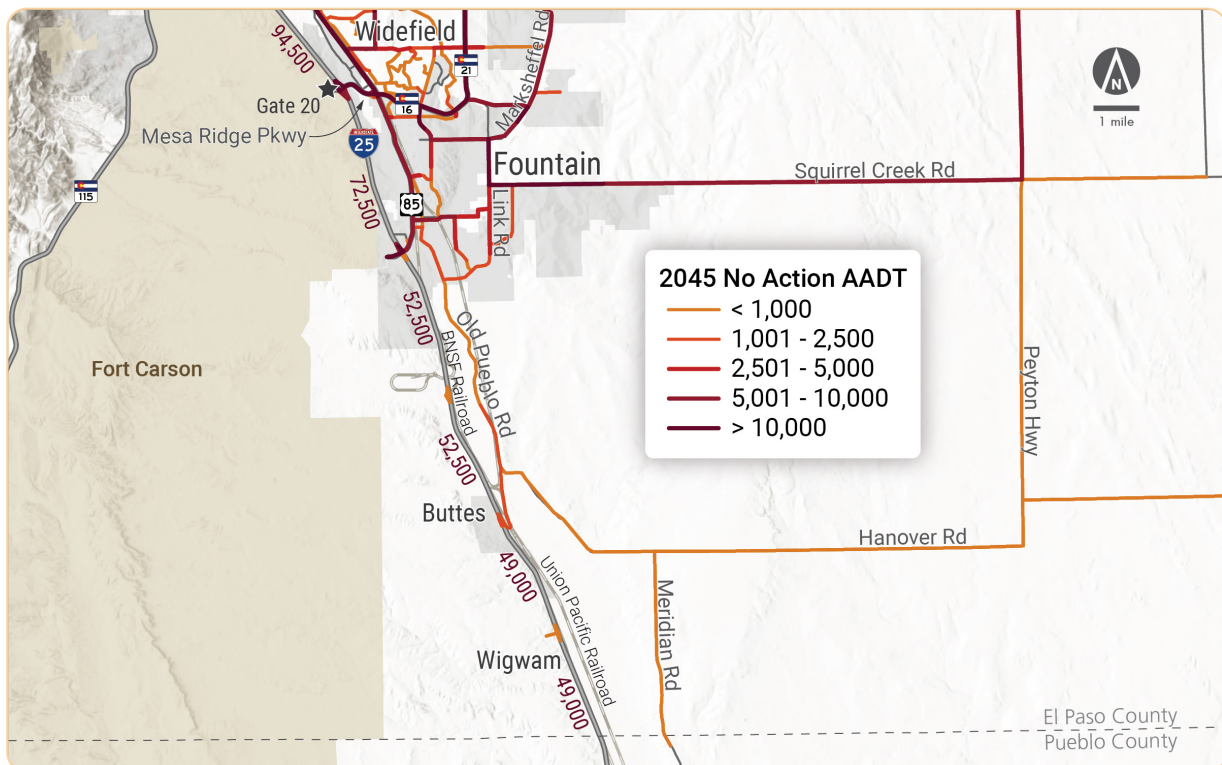


Figure 9. 2045 No Action AADT





Regional Traffic Operations

Traffic operations analysis assess the flow of traffic which can impact the efficient and safe movement of people and goods. Managing traffic can help reduce congestion, improve air quality, and increase road safety. Traffic counts collected in March 2022 and traffic volumes from the adopted 2045 Moving Forward Plan network scenario were used to evaluate traffic operations for existing conditions and the 2045 No Action Alternative. This evaluation shows the delay vehicles would experience while traveling on a road or through an intersection today compared to the 2045 No Action. Shown below are the top three intersections within the Study Area that experience the most delay during the PM Peak Hour, from 4:30 pm to 5:30 pm, for Existing vs. 2045 No Action conditions.



Mesa Ridge Parkway and Bandley Drive

Future: 71.1 seconds/vehicle

Existing: 12.4 seconds/vehicle



Mesa Ridge Parkway and Syracuse Street

Future: 75.2 seconds/vehicle

Existing: 23.9 seconds/vehicle



US 85 and Ohio Avenue

Future: 78.9 seconds/vehicle

Existing: 24.4 seconds/vehicle

Regional Traffic Safety

Crashes along the primary roadways within or adjacent to the Study Area were reviewed over a five-year period (2015-2019) to evaluate the safety conditions within the existing transportation network. Data was sourced from the CDOT statewide crash database and the El Paso County Road Safety Plan study. This data included crashes along the I-25, US 85, Mesa Ridge Parkway, and Powers Boulevard corridors as well as several intersections along local routes within Fountain and El Paso County.

Where applicable, the assessment of the magnitude of safety problems was refined using Safety Performance Functions (SPF). The SPF indicates a high potential for crash reduction when the frequency of total crashes or severe crashes are over the 80th percentile.

As shown in **Figure 10** and **Figure 11**, the highest Study Area crash frequencies and severities are associated with I-25, US 85, Mesa Ridge Parkway/CO 16, and Powers Boulevard. **Figure 10** references crashes off of mainline I-25, and **Figure 11** only refers to crashes on I-25. These transportation routes are heavily relied upon for the surrounding communities and are quickly approaching roadway capacity. There are two locations that had fatal accidents and the highest amount of injury crashes, CO 16 at Syracuse and CO 16 at Fountain Mesa Ridge. To understand regional traffic patterns and areas of needed improvements, CO 16 is mentioned several times as it would tie into the future alignment. CO 16 is the northern limit of the Study Area and essential for understanding regional traffic patterns and safety conditions. CO 16 experiences a higher proportion of off-interstate crashes (as shown in **Figure 10**). Additionally, CO 16 is projected to have the highest AADT in the region. This makes it an essential corridor to consider when planning for broader regional transportation improvements, as understanding traffic safety and capacity on CO 16 helps manage increased traffic volumes plan for future SPE connections.



What is Safety Performance Functions (SPF)?

The SPF reflects the relationship between traffic exposure and the number of crashes in comparison to similar facilities throughout the state of Colorado.



Existing & Planned Conditions

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Figure 10. Crash Locations

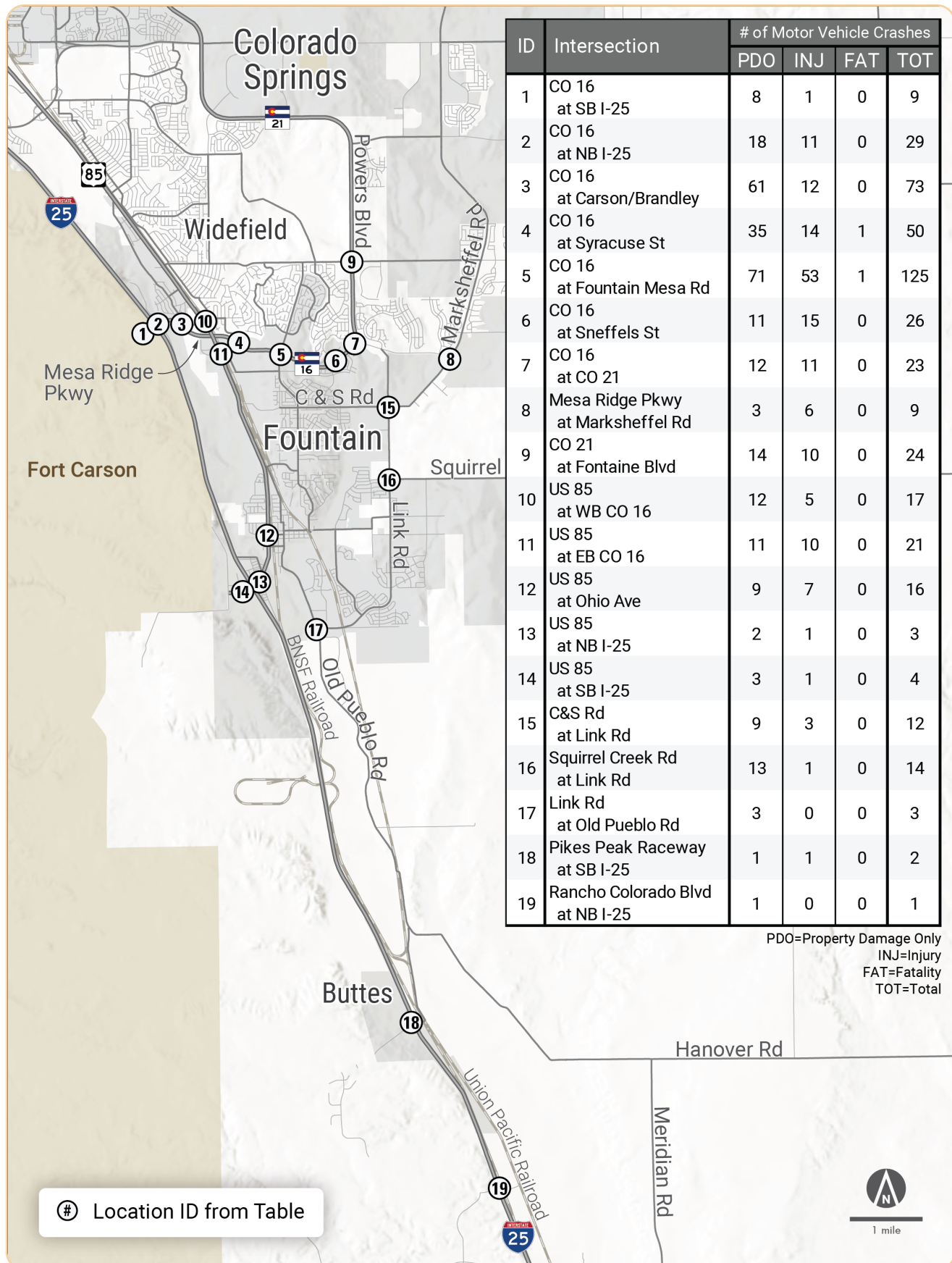
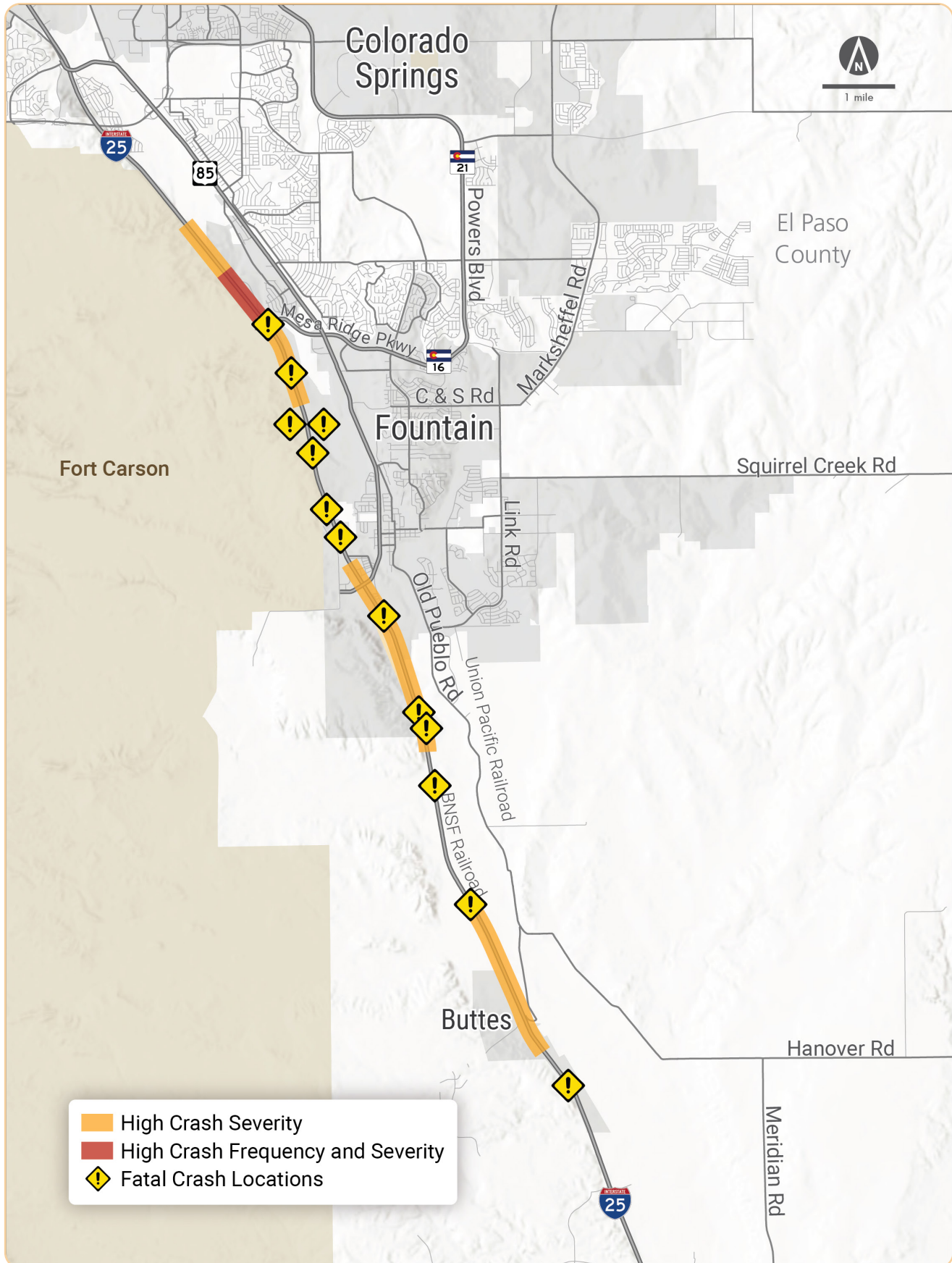




Figure 11. I-25 Crash Frequency and Severity





2.2.4 - Transit, Bike and Ped, and Freight Facilities

Existing and Planned Transit Route and Service

The current transit services operating along I-25 include: CDOT Bustang Outrider, Greyhound Buses, and Los Paisanos Autobuses, all of which pass through but do not stop within the Study Area. The CDOT Bustang Outrider Line operates between the Cities of Colorado Springs, Pueblo, and Lamar. The Greyhound bus service provides transit options to the Cities of Denver, Colorado Springs, and Pueblo. Los Paisanos Autobuses provides service through Colorado from El Paso, Texas to the Cities of Denver, Greeley and Longmont. Although all three transit services lack any bus stops within the Study Area, an existing, informal mobility hub located at the south end of Santa Fe Avenue/US 85 could accommodate stops and support connectivity of various mobility services. The Fountain Municipal Transit (FMT) is a transit service that operates a bus service only within Fountain, directly adjacent to the Study Area.

Future Front Range Passenger Rail (FRPR) is supported by the PPACG, Colorado Springs, and Fountain, who have also advocated for a stop in Fountain. According to the FRPR website, from 2020 to 2050, an additional 3 million people are expected to live and commute along the Colorado Front Range. With this anticipated growth, the state of Colorado is currently working to design and plan the FRPR as a 180-mile intercity passenger rail corridor along or near the I-25 corridor, between Fort Collins and Pueblo. Currently, the only stop planned near the Study Area is to the north in Colorado Springs.

Existing and Planned Truck, Air, and Rail Freight Routes and Facilities

The PPACG's adopted Regional Transportation Plan (RTP), 2045 Moving Forward Plan, prioritizes improving economic vitality and freight movement by enhancing the transportation system. A key focus is maintaining or improving capacity on major truck routes within the region. The plan highlights addressing gaps in the existing roadway network as a potential way to enhance freight capacity. While it doesn't specifically outline regional freight movement improvements, PPACG collaborated with CDOT on its 2017 Freight Plan update. This includes planned state-level improvements aimed at enhancing regional transportation corridors, such as I-25.

According to PPACG, the route with the highest vehicle miles traveled (VMT) in the region for freight was I-25, followed by US 24 and Powers Boulevard. The existing Powers Boulevard has notably lower freight usage on the southern end of the Corridor which is likely due to its lack of connectivity to I-25 and its current rural condition.

Existing and Planned Bike and Pedestrian Facilities

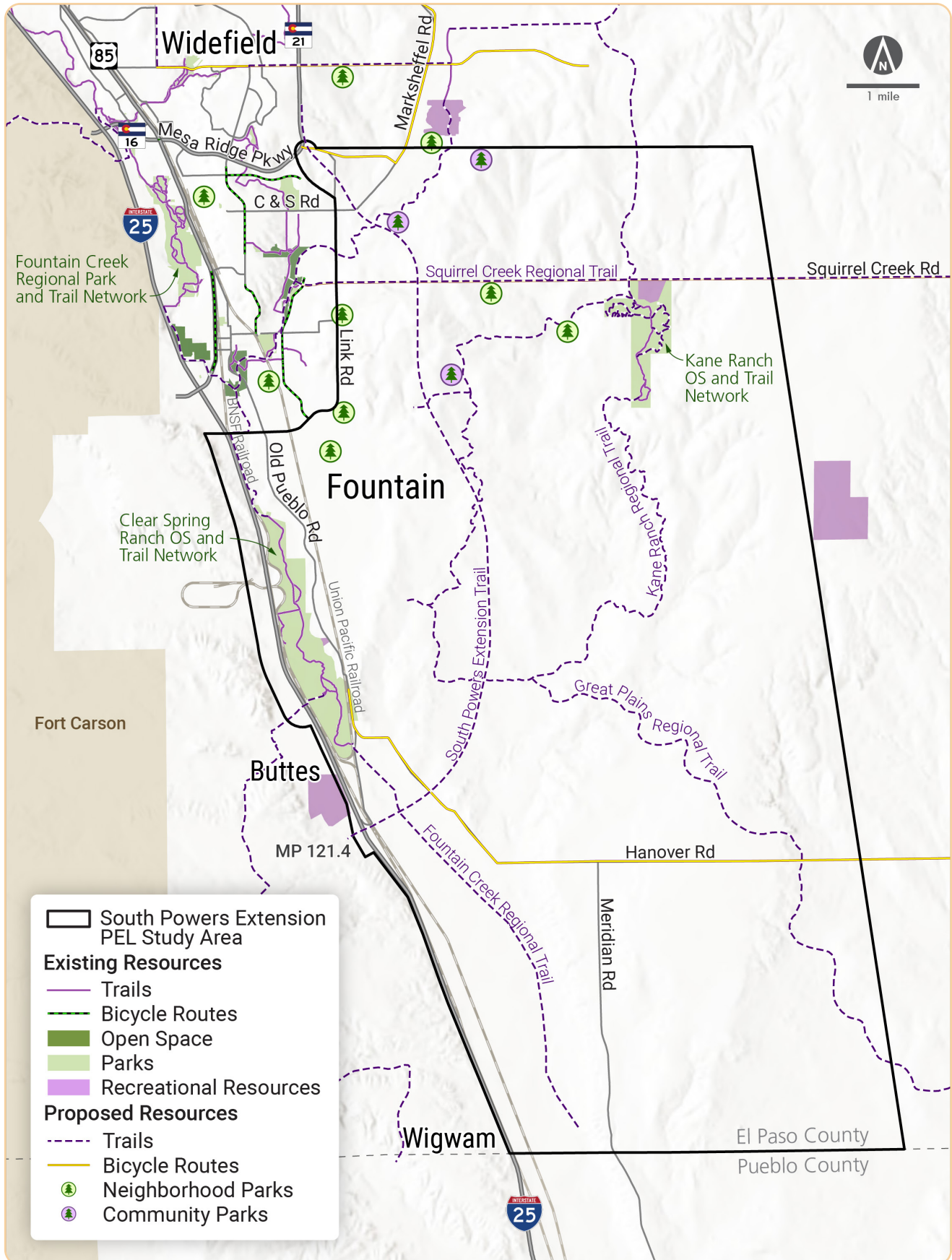
The South Powers Extension Feasibility Study (PPACG 2000) identified public interest in developing a bikeway along the proposed SPE alignment to connect east-west and north-south routes. A review of current bike and trail plans was conducted at state, county, and municipal levels. CDOT's Statewide Bicycle and Pedestrian Plan (2015) assessed the existing infrastructure and recommended improvements aligned with each regional transportation plan. Currently, the Kane Ranch Open Space/Trail Network and Clear Spring Ranch Open Space/Trail Network are the only trails within the Study Area. These existing resources provide connection points for proposed bicycle and pedestrian facilities. As shown in **Figure 12**, the proposed South Powers Bicycle Route/Regional Trail would follow the future SPE alignment. Other proposed facilities include the Kane Ranch Regional Trail, Squirrel Creek Bicycle Route/Regional Trail, and the Great Plains Regional Trail. The Fountain Transportation Master Plan, Park and Trails Master Plan, and the El Paso County Major Transportation Corridors Plan include specific multimodal improvement projects that advance PPACG's vision for a connected network within the Study Area.



Existing & Planned Conditions

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Figure 12. Existing and Proposed Recreational Resources





2.3 - Environmental Context

Environmental resources considered in this PEL Study were collected in detail as part of the Existing Conditions Report and include:

- Floodplains and Floodways
- Water Resources
- Federally and State-Sensitive Species
- Migratory Birds
- State and National Forests
- Recreational Resources and Open Space
- Water Quality
- Historic and Archaeological Resources
- Paleontological Resources
- Environmental Justice & Equity
- Hazardous Waste Sites and Mines
- Community or Public Wells
- Prime and Unique Farmland
- Wildlife Movement
- Barrier Effect
- Noise
- Air Quality

These resources were assessed through desktop reviews of online databases and supporting data that was available. A project webmap was used and updated throughout the PEL Study to share and review data with the PMT. NEPA scoping recommendations, project design, and schedule implications were discussed for each resource. In addition to the NEPA clearance processes discussed, other potential permits that may be required were identified (**Appendix D**).



Purpose & Need

Purpose & Need

Goals

3. Purpose & Need

3.1 - Purpose & Need

The second milestone in the PEL Study process is to identify the Purpose and Need for future transportation improvements. The Purpose and Need provides justification for the PEL Study and drives the development of evaluation criteria for alternatives.

The Purpose and Need was informed by existing transportation conditions identified throughout the Study Area and local roadway network. The PMT also considered previous planning studies, local agency coordination, and public input received to draft the Purpose and Need statements. After the statements were drafted, the PMT gathered feedback from the TT, EOT, and the public. The complete Purpose and Need memo submitted to FHWA for Coordination Point 2, is included in **Appendix B – FHWA Coordination Points**.

SPE connection is needed to:

- **Advance Local and Regional Mobility:** The SPE is needed to complete the regional transportation network in the Fountain area to adequately serve future travel demands associated with continued growth. Improvements would enhance north-south mobility in the region by providing a connection to I-25, increasing access to future east-west routes, and adding an alternate route to other destinations.
- **Incorporate Multimodal Opportunities:** Stakeholder input and prior planning efforts identified the need to increase connectivity and accessibility to multimodal opportunities. Through improved bicycle and pedestrian facilities, enhanced trail network connectivity, and potential public transit connections, the SPE would support an integrated transportation network.

3.2 - Goals

Goals were developed collaboratively with the PMT and TT, while using valuable input from stakeholder meetings. Alternatives are evaluated by how they meet the Needs of the PEL Study and Goals are used to help differentiate priorities during the Alternatives Evaluation process. Goals also help define local and regional priorities which can be considered when making future design recommendations.

The recommended improvements should:

- Accommodate Local and Regional Plans and Economic Growth
- Define a Corridor Preservation Footprint
- Consider Impacts to the Natural and Built Environment
- Incorporate Resiliency
- Support Technology and Green Infrastructure

Alternatives Development, Evaluation, & Recommendation

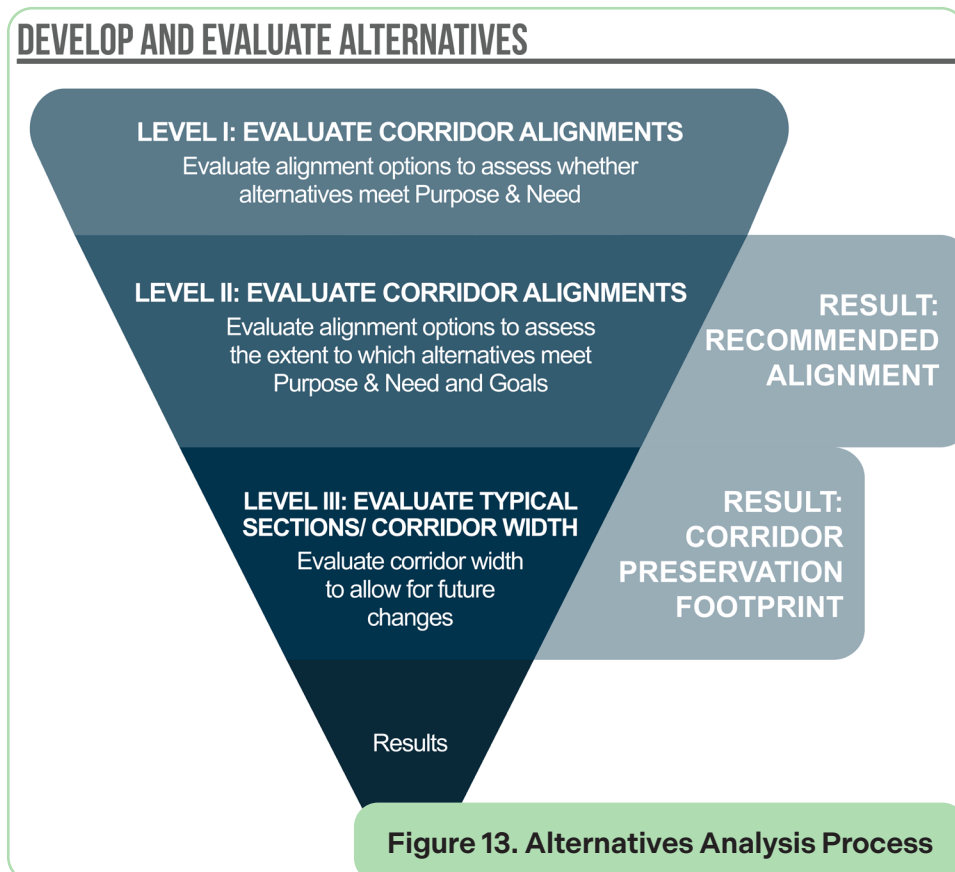
- Alternatives Development
- Alternatives Evaluation and Recommendations

4. Alternatives Development

Alternatives were produced through a three-tiered process by utilizing a focused evaluation effort (**Figure 13**). The process began with a large number of alternatives that were originally derived from previous planning studies and resulted in a Recommended Alternative. Agency coordination and public involvement played a major role in the Alternatives Evaluation process.

4.1 - Evaluation Criteria and Performance Measures

The Alignments that met the PEL Study's Purpose & Need and matched corridor context were further developed into alternatives. Evaluation criteria and performance measures were developed before the Alternatives Development and Evaluation process. The PMT reviewed the proposed Evaluation Criteria with the EOT and TT and utilized their revisions to confirm the final Evaluation Criteria. The final Evaluation Criteria, as approved by all TT members, are shown in **Table 1**. The Alternatives Development and Evaluation Memo (**Appendix G**) was submitted to and approved by FHWA.



**Table 1. Evaluation Criteria and Performance Measures**

Category	Criteria	Level 1 Performance Measures	Level 2 Performance Measures
Project Needs			
Advance Local and Regional Mobility	Mobility and Operations	• Potential to improve travel time for adjacent routes • Potential to improve mobility / reduce congestion	• Vehicle miles traveled (VMT) • Out-of-direction travel (miles)
Advance Local and Regional Mobility	Connectivity	Potential to improve connectivity to regional destinations	• Reduces travel time • Reduces emergency response time
Incorporate Multimodal Opportunities	• Trail System • Transit • Freight	Potential to increase multimodal mobility	• Multiuse path connection opportunities • Accommodates/supports transit expansion • Reduces freight travel times and/or improves route connectivity
Project Goals			
Accommodate Local, Regional Plans, & Economic Growth	Local Agency Transportation & Development Plans	Not evaluated in Level 1	• Alignment with local agency plans
Corridor Preservation Footprint	Landowners/Business/Neighborhood Impacts	Not evaluated in Level 1	• Complexity of land acquisition
Consider Impacts to Land Use and the Natural & Built Environment	Resource Constraints	Not evaluated in Level 1	• Resource-specific constraints
Resiliency	Redundancy Threat Identification (fire, flood, etc.)	Not evaluated in Level 1	• Redundant routes opportunities • Identify threats (number)
Support Technology & Green Infrastructure	• Optimize Corridor Footprint • Reduce Greenhouse Gas • Emissions • Inclusion of Technology	Not evaluated in Level 1	• Traffic model GHG reduction • Connectivity to Disproportionately Impacted Communities



4.2 - Alignment Alternatives Development

Alternatives were developed through a multi-level process. Understanding of previous alignments studied, agency coordination, and public involvement, each played a major role in the Alternatives Development process. The Alternatives Development and screening process is described in detail in **Appendix G - Alternatives Development and Evaluation**. Alignment alternatives that were evaluated during the PEL Study are shown in **Figure 14**.

No Action Alternative

The No Action Alternative anticipates future 2045 conditions of the transportation network around the Study Area without completing any transportation improvements that are recommended by this PEL. The No Action Alternative includes required safety and maintenance improvements to maintain an operational transportation system. Additionally, it includes the projects previously identified in the 2045 Moving Forward Plan. The No Action Alternative does not meet the Purpose & Need of the PEL but is used as a baseline for comparison to the recommended transportation improvements.

Table 2. PPACG adopted 2045 Regional Transportation Projects

Facility	Project Name	Project Description	Source
CO 21	CO 21 and Airport Road Diverging Diamond I Interchange Construction	Construction of a diverging diamond interchange at CO 21 and Airport Road	SB-267 and CDOT's 10-Year Strategic Funds
CO 21	Powers Boulevard (CO 21) Post Findings of No Significant Impacts (FONSI) ROW Acquisition	ROW preservation project	CDOT Regional Priorities
CO 21	CO 21 and Research Parkway Diverging Diamond Interchange	Construction of a new interchange at CO 21 and Research Parkway	CDOT Regional Priorities, 10-year strategic funds
CO 16 & CO 21	CO 16 & CO 21 Signal project	Upgrade signals at various locations	Region 2 Signal Pool
CO 21	CO 21 Corridor Support	Construct new interchange	CDOT Regional Priorities
CO 21	North I-25 interchange at Northgate/Voyager	Construct new interchange	Private developer funded
CO 21	CO 21 connection between Voyager and CO 83	Construct new connection to replace existing segments of CO 83 and Interquest Parkway that serves as the connection between CO 21 and I-25	TBD - Private developer, local funding mix



Previously Considered Alignments

The previously identified alignments from the South Powers Boulevard Feasibility Study (PPACG, 2000), which evaluated connecting CO 21 to I-25 south of Fountain, were additionally included in the Alternatives Analysis process. Alternatives that were no longer feasible and/or have fatal flaws due to new development, utility conflicts (solar farms), or that have already been constructed were removed from consideration.

New Alignments

The TT recommended that an additional alternative connection to I-25 should be analyzed near the El Paso County and Pueblo County border. This additional connection point was suggested to evaluate a parallel route to I-25 that provides another north-south connection between Colorado Springs and Pueblo.

The PMT retained five alignments previously analyzed and developed four new alignments to be evaluated as part of the Alternatives Analysis process. These four additional alignment variations were developed to avoid new utility facilities and developments but retained the same connections points to I-25. These nine options connect to four different I-25 connection points (**Figure 14**).

Connection to I-25

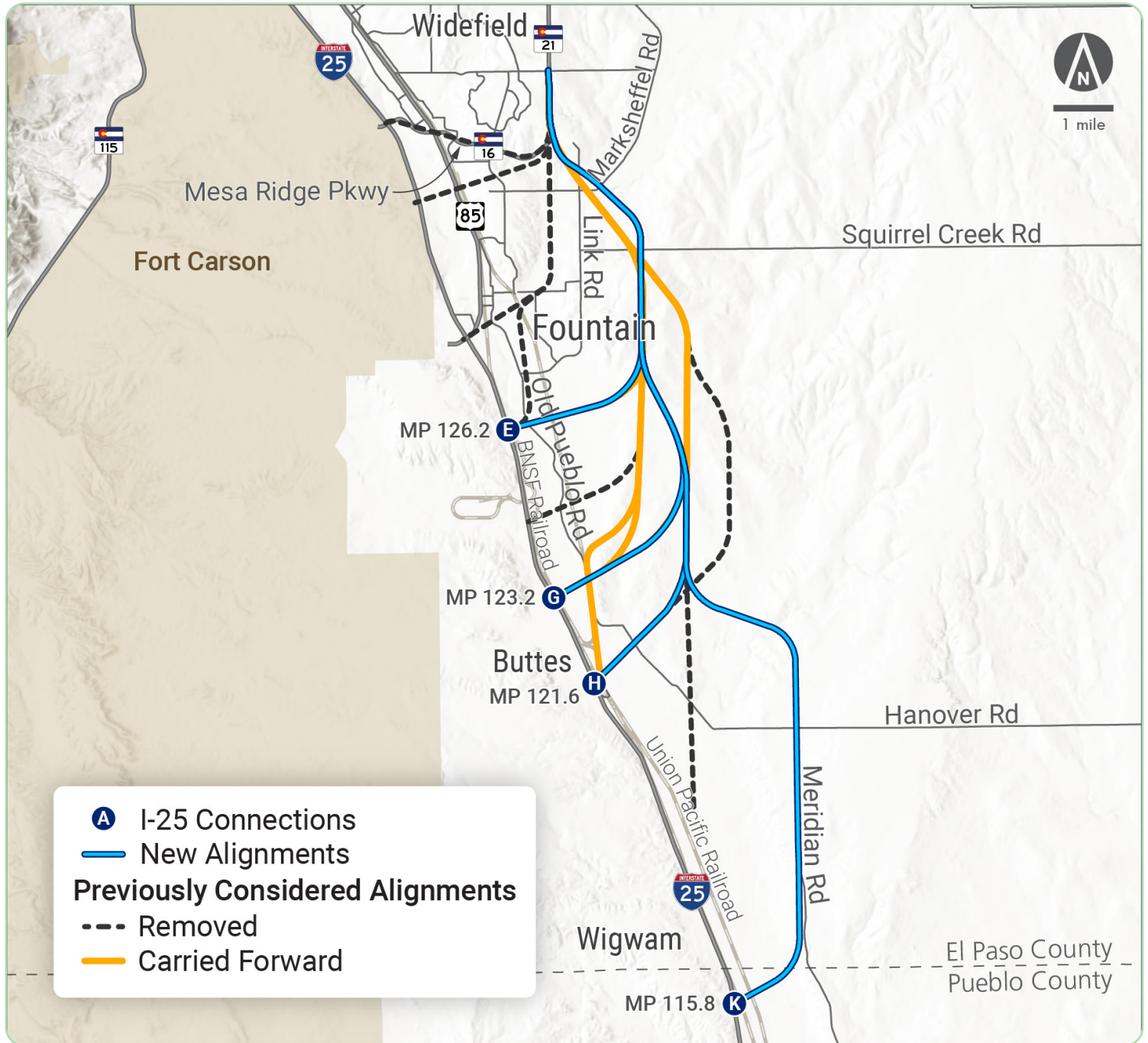
Identifying implementable connection points is important in the successful development of future roadways recommended in the PEL Study. The SPE alignment alternatives start at the southern end of the existing Powers Boulevard. This connection point forms the northern starting-point of the PEL Study Alternatives Considered. Alternatives were developed by identifying appropriate connection points from the SPE alternatives to I-25 within the Study Area. These connection points to I-25 are identified in **Figure 14**, with blue lettered circles.



CO 21 Southern Terminus at CO 16



Figure 14. Alignments Considered and Carried Forward





4.3 - Alternatives Evaluation

4.3.1 - Evaluation Process

Level I: Purpose and Need

The Level I evaluation assessed a full range of alternatives to identify those that met the Purpose and Need. The needs defined for the Corridor were to advance local and regional mobility and incorporate multimodal opportunities. Each alternative was evaluated according to the established evaluation criteria.

- Does this alternative have the potential to improve travel times for adjacent routes?
- Does this alternative have the potential to improve mobility and/or reduce congestion in the Study Area?
- Does this alternative have the potential to improve connectivity to regional destinations?
- Does this alternative have the potential to increase and not preclude multimodal mobility by way of trail system connectivity, transit opportunities, and freight connectivity?

Result of Level I

The Level I evaluation was limited to a “yes” or “no” evaluation to determine if the alternative met the criteria. All alternatives met the Purpose and Need and were carried forward into Level II. The No Action Alternative was found to not meet Purpose and Need but was still carried forward for comparison to other alternatives in the Level II analysis. The PMT and TT had the opportunity to review and discuss the results as well as the alternatives progressing to Level II. The Level I evaluation matrix is available in **Appendix G – Evaluation Criteria and Alternatives to be Evaluated**.

Level II: Alignment

Following the Level I evaluation, alternatives that only met the PEL Study Needs were carried forward for Level II evaluation. The Level II evaluation adds more detailed performance measures to evaluate each Alignment. At this level, Goals that consider community and local agency objectives, as well as potential environmental impacts, are also used to evaluate alternatives. Each alternative was evaluated according to the established criteria (**Appendix G**).

Result of Level II

The following terminology was used to describe the outcomes of the Level II evaluation of the alternatives. Alternative outcomes are described to provide guidelines for the Alternatives Analysis and to provide the most flexibility as projects move forward after the PEL is completed.

Eliminated: The alternative does not meet the Purpose and Need, has a fatal flaw, and/or is considered unreasonable. An alternative that is eliminated, is then removed from further consideration in this PEL Study.

Not Recommended: The alternative would not be evaluated further in this PEL Study due to comparatively negligible benefits and higher impacts than other alternatives but may be studied further with subsequent NEPA and project development.

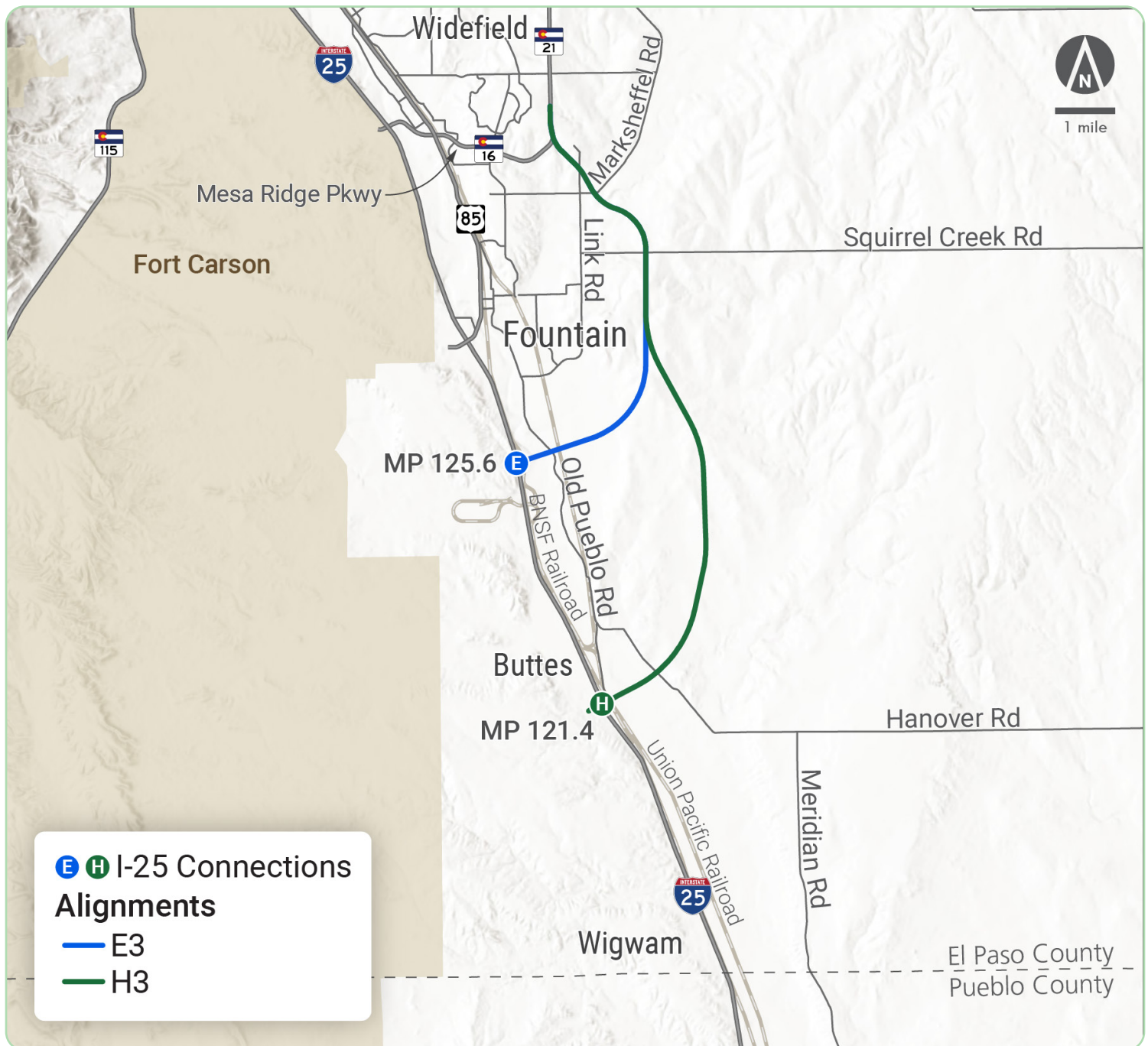
Carried Forward: The alternative is considered reasonable and feasible and may be considered for further evaluation in this PEL Study or future NEPA and project development.

Recommended: The alternative is considered reasonable and feasible and recommended for consideration as the Recommended Alignment(s) during future NEPA and project development.

Based on the results of the Alternatives Analysis, E3 and H3 scored the highest and are the Recommended Alignments for the PEL Study (**Figure 15**). Although E3 and H3 scored the same overall, Alignment H3 scored higher in meeting the mobility and multimodal needs of the Corridor in comparison to Alignment E3, which scored higher in meeting the PEL Study's Goals. Alignment E3 aligns with current local planning efforts and provides a solution to address urgent needs in the Corridor. The PMT had originally presented Alignment H3 as the only Recommended Alignment to the TT on April 18, 2023. During that meeting, the TT suggested moving forward with Alignments E3 and H3 as a phased approach, to provide long-term solutions to improve local and regional mobility.



Figure 15. Recommended Alignments



Level III: Typical Section

In the final level of the Alternatives Analysis process, several corridor widths were evaluated to determine what future elements could be included without preventing potential future design options. The width of each typical section for an alternative would form the Corridor Preservation Footprint (discussed further in Section 4). This width is intended to inform decision-making at the state and local level in terms of preserving land and making land use decisions to not prevent future transportation improvements. Each of the developed Typical Section Alternatives included the same basic elements, but the differentiator was the amount of additional space available for potential corridor elements to be determined during final design.



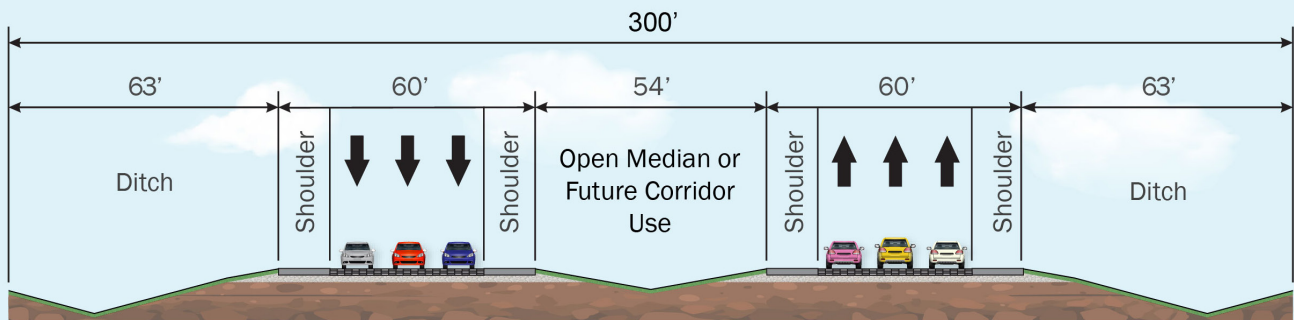
Typical Section Alternatives Evaluated

Potential Corridor Elements (approx. min. width required)

- Utility Corridor (40')
- Pedestrian Trail (12')
- E-Bike Path (15')
- Equestrian Trail (10')
- Water Quality Detention Areas (15')
- Pollinator planting areas (5')
- Rail Line (26'-single track)
- HOV/Express Lanes (16')
- Park-n-Ride Lots (60')
- Bus Rapid Transit lanes (16')
- Wildlife Crossings (12')
- Freight-dedicated lanes (12')
- Future technology (solar panels, EV charging, etc.)

Option 1:

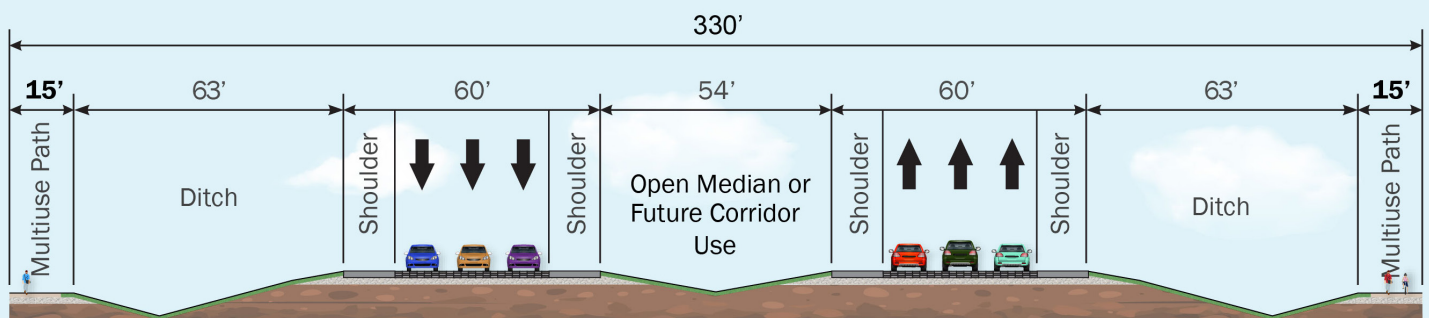
Includes a corridor width for a six-lane highway, 12' shoulders, a 54' median and 63' ditches on both sides, which is a required element based on current highway standards.



Option 1: 300' Section (No Additional Corridor Elements Added)

Option 2:

Includes corridor width for a six-lane highway with a 54' median, 12' shoulders, two 15' multiuse paths (for bike and pedestrian use), and 63' on either side to include ditches.

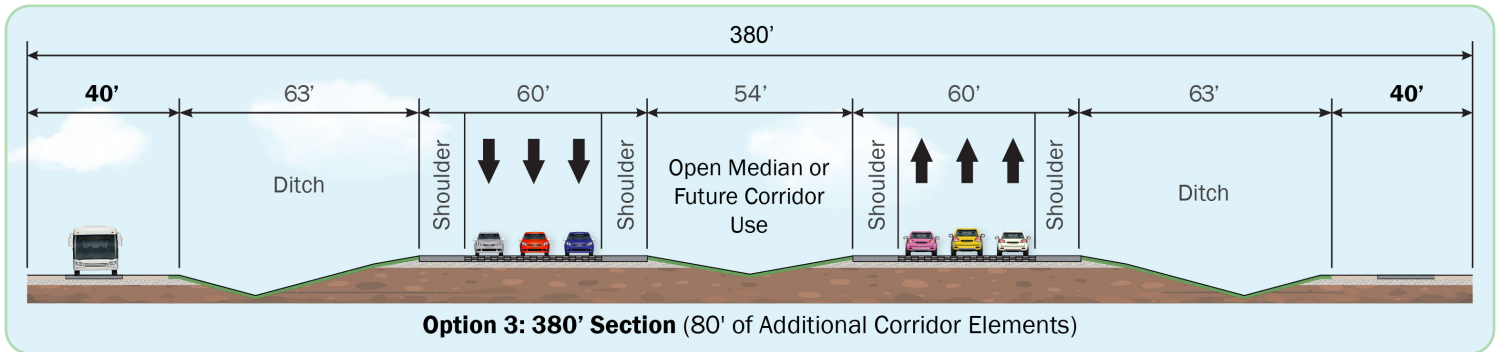


Option 2: 330' Section (30' of Additional Corridor Elements)



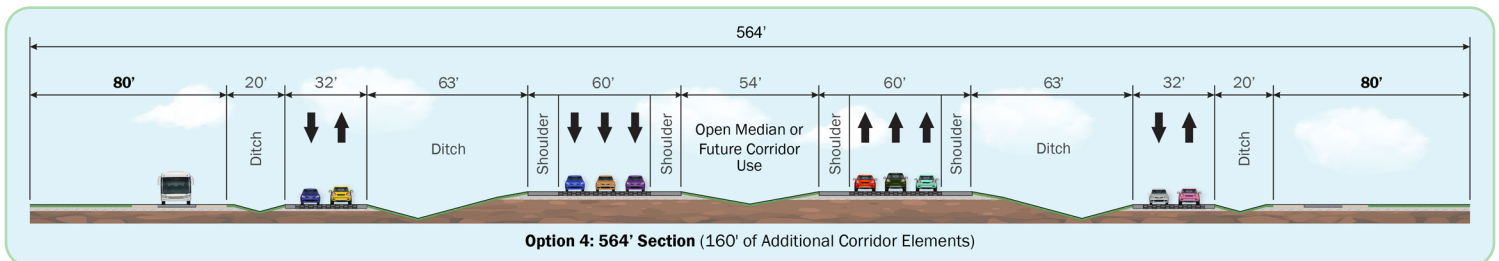
Option 3:

Includes corridor width for a six-lane highway with a 54' median, 12' shoulders, 63' on both sides to include ditches and 40' on either side to include a utility corridor with multimodal elements (freight or transit designated lanes, an equestrian trail).



Option 4:

Includes corridor width for a six-lane highway with a 54' median, 12' shoulders, 63' ditches on either side, two-lane frontage roads with four-foot shoulders and 20' outside ditches on either side, and 80' on either side to include a utility corridor with multimodal elements (freight or transit designated lanes, an equestrian trail).



Result of Level III

The benefits of each corridor width were evaluated with considerations to environmental resource impacts within the Study Area. The PMT used this evaluation to determine a corridor footprint that would provide flexibility to accommodate changing technology and future needs.

The PMT decided to recommend different typical sections for the different phases of the roadway. The E3 Alignment is recommended to be built before the H3 Alignment to provide short-term solutions to address immediate mobility problems in the area. For the E3 Alignment to meet current planning expectations, the Option 2 Typical Section (330 feet) is recommended. The E3 Alignment intersects areas that are more heavily developed, so a smaller typical section would allow the roadway to minimize potential impacts.

For the H3 Alignment, the Option 3 Typical Section (380 feet) is recommended so that corridor preservation can occur prior to future development. A larger area of preserved land for this alignment would allow adequate spacing for design flexibility without constraining corridor elements. Having a more flexible and larger space is appropriate for the H3 Alignment, which is recommended to improve local and regional mobility.



4.4 - Recommendations

4.4.1 - Corridor Preservation Footprint

The PEL Study delineated a corridor preservation footprint that minimized environmental and social impacts but provided enough room for various corridor elements without precluding future design ideas. This footprint represents an estimated area that would be necessary to accommodate the implementation of:

- Ultimate corridor width
- Interchange configurations
- Multimodal facilities along the Corridor
- Space for future technology

This footprint is intended to inform decision-making processes for local agencies that have the opportunity to preserve land and determine land use decisions to incorporate the PEL Study Recommended Alignments. The footprint width generally corresponds to the recommended typical section but expands near the proposed interchange locations. The ACP provides a detailed mapbook of the footprint, along with parcel information and future access conditions. A package of digital files has also been provided to allow communities, developers, and stakeholders to view the corridor preservation footprint interactively.



Why do we need a Corridor Preservation Footprint?

A Corridor Preservation Footprint defines the area needed for transportation corridors, such as roads or railways, taking into account factors like landscaping, utilities, and drainage. It is intended to inform decision-making processes for local agencies that have the opportunity to preserve a corridor.

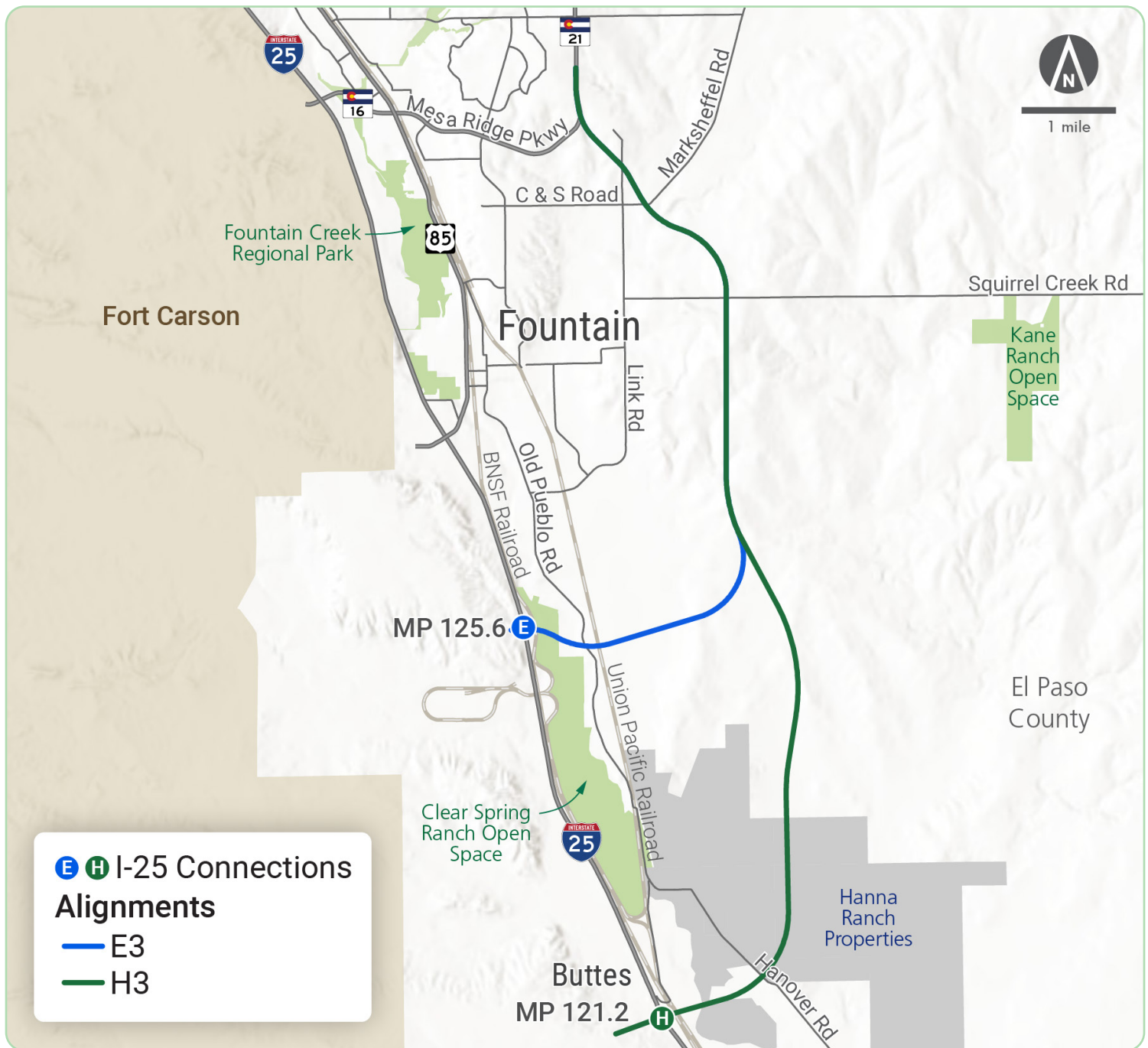
4.4.2 - Post-Recommendation Alignment Refinements

After developing the Recommended Alignment and project phasing, the PMT met with property owners along the proposed corridors. During these meetings, the PMT received vital feedback from property owners about specific conditions and local knowledge of the area. The PMT also worked with property owners to understand how best to reduce potential impacts to residential property.

Based upon feedback received through the property owner meetings and the Public Open House, the PMT reviewed the Recommended Alignment to address concerns from the public. These refinements are intended to reduce and/or eliminate direct impacts to residences and natural features (**Figure 16**).



Figure 16. Post Recommendation Refined Alignment



Alternative E3 - The PMT shifted the connection points to I-25 from mile post (MP) 126.2 to MP 125.6. This modification put the interchange location in an area where the railroad was shifted to the east and allowed more room to build the connection.

This shift also eliminated the otherwise necessary action of acquiring up to 13 properties that would divide an existing neighborhood.

The E3 Alignment would now cross the Clear Spring Ranch Open Space which is owned by Colorado Springs Utilities and managed by El Paso County Parks. The crossing is recommended to be elevated on structures to minimize impact to the trail systems in the open space and Fountain Creek.



Alternative H3 - Alignment H3 was refined to reduce the impact to the existing ranchland and homes east of Fountain Creek. The alignment was shifted to the south to avoid existing electric transmission lines while also crossing Fountain Creek at the narrowest point of the existing conservation easement that is part of the Hanna Ranch. As it continues to the east, the alignment was shifted south to avoid existing structures located along Hanover Road.

To eliminate four potential property acquisitions along Marksheffel Road, Alignment H3 was refined to cross Marksheffel Road through an undeveloped area. This shift in Alignment H3 is not consistent with current development plans for the proposed developments north and south of Marksheffel Road. Another refinement shifted the location of Alignment E3 and H3 divergence to the south of Kane Ranch.

The E3 and H3 Alignments were both refined to minimize impacts to residential properties and maximize the compatibility with planned roadway networks.

4.4.3 - Access Recommendations

In coordination with the PEL Study, an ACP was created to identify access locations in accordance with the State Highway Access Code to accommodate the anticipated increase in population and/or change in land uses. The State Highway Access Code, 2 CCR 601-1 (Access Code), implements state statutes and establishes standards for regulating access to Colorado State Highways.

The classification of a roadway determines the applicable engineering design criteria and appropriate access distances identified in the Access Code. Since the SPE will initially be classified as an expressway, transitioning to a freeway as interchanges are added, access points will be required to maintain a minimum spacing of one mile between them.

Access management provides the following local and regional benefits:

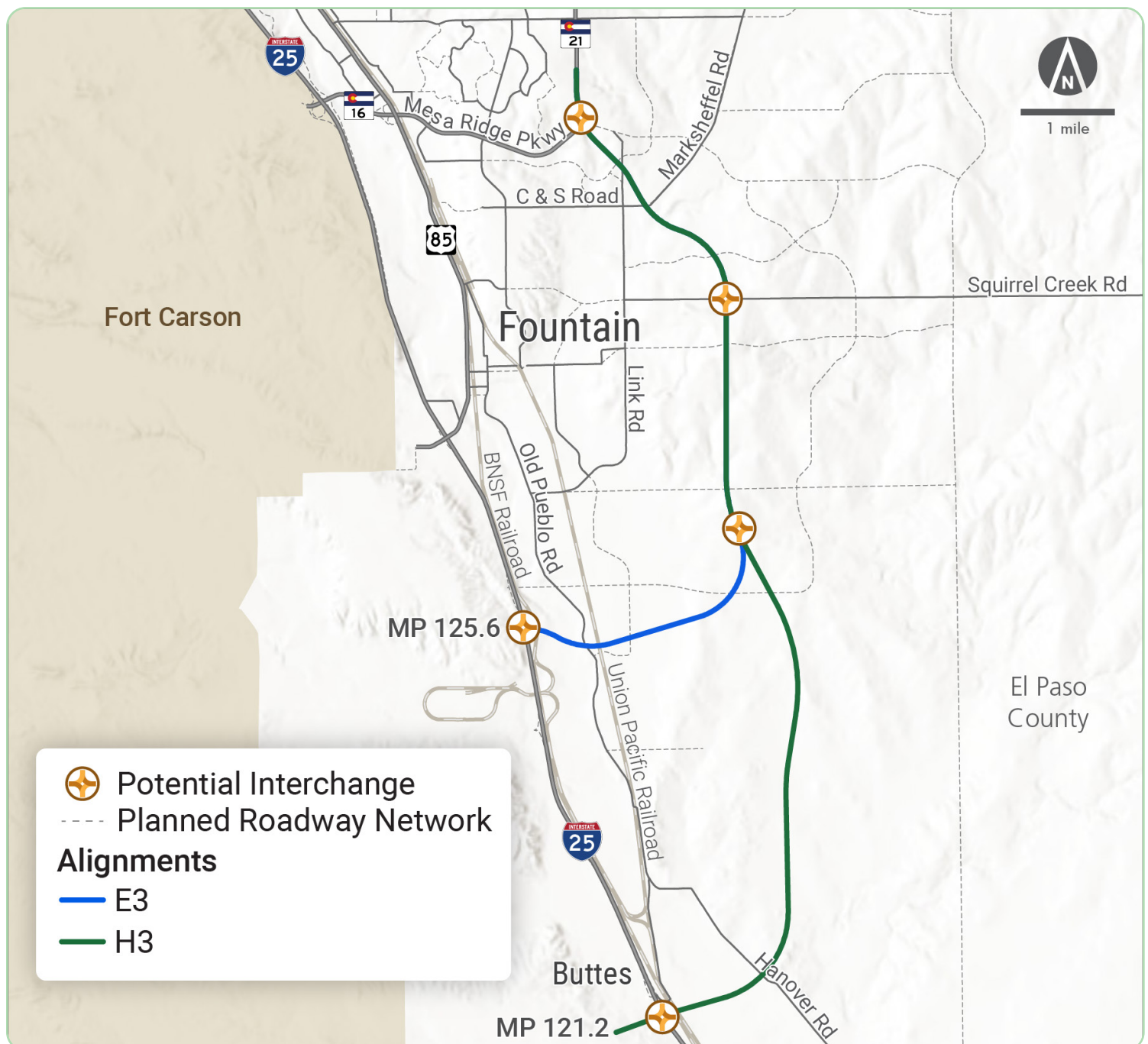
- **Improved Traffic Flow and Reduced Congestion:** By limiting the number of access points (driveways, intersections, etc.), the frequency of merging, weaving, and stopping is minimized, leading to smoother, more efficient traffic flow. This reduction in traffic interruptions can help mitigate congestion, particularly during peak travel times.
- **Enhanced Safety:** Fewer access points decrease the likelihood of conflicts between vehicles entering and exiting roadways and through traffic. With better spacing, the potential for accidents involving turning vehicles, sudden stops, or lane changes is reduced. This is especially important on high-speed roadways like freeways and expressways, where safety is a top priority.
- **Reduced Travel Time:** Longer distances between access points allow for faster, uninterrupted travel. Drivers experience fewer delays caused by vehicles entering or exiting the roadway, leading to quicker travel times across the region.
- **Better Mobility and Connectivity:** Frequent access points, though convenient, can lead to more conflict points, resulting in operational inefficiencies such as congestion, delays, and accidents. Strategically placed access points, on the other hand, contribute to more efficient regional road networks, making travel between cities, towns, and rural areas easier and more balanced.
- **Improved Environmental Impact:** Reducing the number of access points can decrease vehicle emissions by reducing the need for frequent stops and starts. This can result in lower fuel consumption and less air pollution.
- **Support for Long-Term Planning and Development:** With well-managed access, local governments can better plan for future growth and development. Having consistent access spacing helps protect future rights-of-way, which can accommodate road widening, transit lanes, or other infrastructure improvements.
- **Economic Benefits:** Efficient access management can enhance the appeal of areas along expressways and freeways for both businesses and residents. The reduced risk of congestion and accidents makes the area more attractive for commercial development, which can, in turn, drive economic growth.



- **Rural Context Consideration:** In rural areas, greater spacing between access points helps preserve the integrity of the roadway so that future transportation needs are met as traffic volumes grow. It also reduces the negative impact of access points on scenic views and agricultural or undeveloped lands.

Recommended interchange locations along the SPE, as shown in **Figure 17**, were identified to provide connectivity to the existing and future local roadway network and to be consistent with adopted access spacing criteria.

Figure 17. Potential Interchange Locations





4.5 - Regional Benefits of Implementing Study Recommendations

Air Quality

Air pollutant or greenhouse gas (GHG) emissions from transportation sources, including cars and trucks, make up 29 percent of US excess carbon dioxide and methane emissions and 23 percent of total US volatile organic compound (VOC) emissions. VOCs react with nitrogen oxides on hot summer days to form particle pollution and ozone (also known as smog).

In 2021, Governor Jared Polis signed Senate Bill 21-260 (SB21-260) that is intended to make transportation more sustainable, improve equity, and reduce GHG pollution from transportation. SB21-260 was instrumental in the development of the GHG Transportation Planning Standard (TPS), which was adopted by CDOT and the State's five Metropolitan Planning Organizations (MPOs), including PPACG. The GHG TPS is dedicated to building a future transportation system that improves existing transit, biking, and walking options through the development of infrastructure. The increased availability of transportation options for daily users can lead to less hours spent in single occupancy vehicles, which lessens the number of vehicles on major roadways, such as I-25.

This PEL Study identifies the need to adequately serve future travel demands and relieve congestion on I-25. The MOVES3 transportation air pollution model was used to evaluate the regional benefits of reducing GHG emissions with the implementation of SPE. The Recommended Alignment would meet this PEL Study need in addition to reducing GHG emissions associated with I-25 travel (**Table 3**). By providing a redundant route to I-25, the Recommended Alignment would limit GHG emissions by reducing the amount of vehicle hours traveled (VHT). The relationship between VMT and VHT is directly related to the continued increase in GHG emissions. Modeling, using the PPACG TDM Model and MOVES3, showed that by providing additional connections to I-25 through SPE, congestion and subsequent VHT/VMT would be less than the 2045 No Action.

Table 3. GHG Emissions Reductions Summary

Alignment	Regional VMT	Regional VHT	Total GHG Emissions (Metric Tons/Year)
No Action	19,632,547	1,274	6,842
Alignment E	19,532,041	1,251	6,814
Alignment H	19,531,250	1,251	6,813

Source: MOVES3 transportation air pollution model



Regional Connectivity and Access Benefits

The 2015 existing traffic data was used to compare the 2045 No Action scenario with the 2045 Recommended Alignment (**Table 4**). Implementing the Recommended Alignment improves regional VMT and VHT, military access routes, emergency response times, and the distances required for rerouting traffic around stalled vehicles or crashes (incident management). Furthermore, the Recommended Alignment creates more opportunities to integrate multimodal transportation options, such as transit, biking, and walking. Most importantly, it would reduce travel times by enhancing connectivity and access to both local and regional networks, ultimately lowering VMT and VHT.

Table 4. Connectivity and Travel Times Summary

Alignment	Regional VMT	Regional VHT	Military Access Route (Miles) ⁽¹⁾	Emergency Response Times ^(2,3)	Incident Management ^(2,3)
No Action	19,632,547	8,679	40.2	—	—
Alignment E	19,532,041	8,443	33.9	+	+
Alignment H	19,531,250	8,441	37.4	+	++

Note: ⁽¹⁾ Calculated travel times to/from military installations for the 2045 No Action Alternative and Alignment E and Alignment H Alternatives with the SPE. ⁽²⁾ Calculated travel times from fire stations and hospitals were used to compare emergency response times with the 2045 No Action Alternative Alignment E and Alignment H Alternatives with the SPE.

⁽³⁾ A "+" indicates a small improvement and a "++" indicates a substantial improvement.

Mobility and Traffic Operations Benefits

The Recommended Alignments would shift traffic from I-25 and Mesa Ridge Parkway, relieving existing congestion pinch points that would continuously worsen under the No Action Alternative. The combination of reduced traffic volumes, more balanced distribution of traffic within the Study Area, and the expanded regional network results in improved traffic operations for the Recommended Alignments compared to the No Action Alternative (**Table 5**).

Table 5. AADT Traffic Forecasts and Distribution Summary along I-25

Alternative/ Scenario	I-25 North	I-25 South	Mesa Ridge Parkway West	Mesa Ridge Parkway East
Existing Conditions	66,900	52,000	38,000	30,000
2045 No Action	97,700	77,000	58,000	53,000
2045 Build	71,000	57,000	28,000	23,000



Phasing & Funding

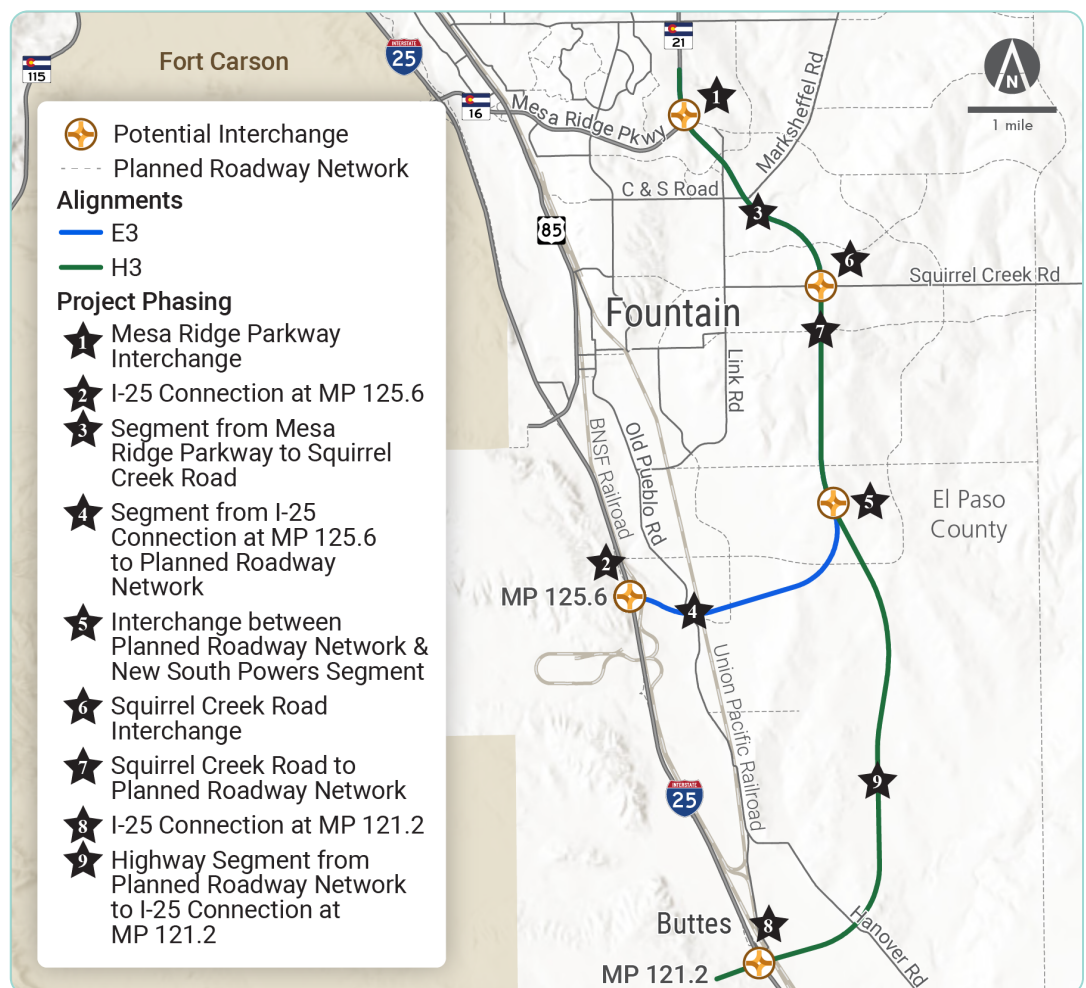
- Corridor Phasing
- Funding Opportunities

5. Phasing and Funding

5.1 - Corridor Phasing

The Alternatives Analysis resulted in the recommendation that Alignments E3 and H3 be developed in phases (**Figure 18**). The following phases are based on a logical order of development that would be most financially feasible, minimize impacts on neighborhoods and other established land uses (based on community feedback), and would address mobility needs of the area. This approach aligns with the understanding that project funding for improvements would not occur for the entire Corridor at once, but more likely in small, periodical amounts over time from a variety of funding sources. Potential projects, improvement types, and range of potential costs were also identified during phasing prioritization (**Table 6**).

Figure 18. Project Phasing Map



**Table 6. Summary of Table of Potential Projects**

Recommended Phasing Order	Location	Improvement Type	Cost Estimate*
1	Mesa Ridge Interchange	Interchange	\$60,000,000 - \$75,000,000
2	MP 125.6 I-25 Interchange	Interchange	\$70,000,000 - \$87,500,000
3	Mesa Ridge to Squirrel Creek Road	six-lane separated freeway with 80 feet for potential corridor elements (380-foot section)	\$134,950,000 - \$168,687,500
4	I-25 MP 125.6 to Planned Roadway Network	six-lane separated freeway with 30 feet for potential corridor elements (330-foot section)	\$264,600,000 - \$330,750,000
5	Planned Roadway Network Interchanges	Interchange	\$40,000,000 - \$50,000,000
6	Squirrel Creek Road Interchange	Interchange	\$40,000,000 - \$50,000,000
7	Squirrel Creek Road to Planned Roadway Network	six-lane separated freeway with 80 feet for potential corridor elements (380-foot section)	\$62,200,000 - \$77,750,000
8	MP 121.6 I-25 Interchange	Interchange	\$120,000,000 - \$150,000,000
9	Planned Roadway Network to I-25 MP 121.6	six-lane separated freeway with 80 feet for potential corridor elements (380-foot section)	\$296,680,000 - \$370,850,000

*Program Costs are based upon 2023 dollars and would be escalated based upon actual construction timelines



5.2 - Funding Opportunities

The potential federal, state, local, and private funding sources were identified as part of the PEL Study. For each funding source, the indication of relevance to the PEL Study and to the grant was documented for future potential projects.

Existing Federal, State, and Local Discretionary/Competitive Grants

El Paso County and Colorado Springs have budgeted \$25 million through the Pikes Peak Rural Transportation Authority for design, environmental clearances and available right-of-way preservation from 2025 to 2035. As future SPE alignments continue to be defined and designed, opportunities for federal, state, local, and developer funding are available. These funds can be applied for the entire project or specific elements through competitive grant opportunities offered by the United States Department of Transportation (USDOT), FHWA, and CDOT. A brief overview of competitive grant programs used to support the planning, engineering, and/or construction of the proposed SPE improvements are provided below:

Funding Program	Relevance to SPE
U.S. Department of Transportation (USDOT)	
Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grant	• Roadway • Transit • Active Transportation • Freight
Infrastructure for Rebuilding America (Infra) Grant	• Freight • Highway • Multimodal • Active Transportation
Federal Highway Administration (FHWA)	
National Highway Freight Program	• Freight
Federal Highway Administration (FHWA) – Colorado Department of Transportation (CDOT)	
Transportation Alternatives Program (TAP)	• Active Transportation (Capital Costs)
Congestion Mitigation and Air Quality (CMAQ)	• GHG Emissions • Roadway • Active Transportation (Capital Costs)
Highway Safety Improvement Program (HSIP)	• Roadway • Freight • Active Transportation
Funding Advancements for Surface Transportation and Economic Recovery Act of 2009 (FASTER) Safety Program	• Roadway (must be defined as addressing a safety issue)
Multimodal Transportation and Mitigation Options Fund (MMOF)	• Transit
Federal Transit Administration (FTA) – Colorado Department of Transportation (CDOT)	
CDOT Division of Transit and Rail: FTA 5311 Formula Grants for Rural Areas Program (49 U.S.C. 5311)	• Transit



Design Considerations

- **Environmental Considerations**
- **Design Considerations**
 - Roadway
 - Land Use
 - Development Considerations
 - Transit, Bicycle/Pedestrian, and Freight
- **Redundancy and Resiliency**

6. Future Design Considerations

6.1 - Environmental Considerations

After the Recommended Alignments were defined, resources of concern were further evaluated within the proposed project phases (**Table 7**).

Environmental resources of potential concern were identified that may require additional costs or impact project schedules during design and construction. These critical resources include:

- Historic Resources
- Noise
- Hazardous Waste Sites
- Parks, Recreation, and Open Space
- Critical Wildlife Habitat
- Waters and Wetlands of the US

Recommendations for critical environmental resources next steps have been identified to assist future potential projects, including:

- If FHWA/CDOT oversight is required for the project, a noise analysis is anticipated to be needed due to the construction of the new roadway, nearby existing and potential sensitive noise receptors, and CDOT noise analysis requirements.
- Identification of potential locations for treatment and work with local agencies to determine water quality requirements. Space constraints are a prominent challenge for water quality, so allocating space for treatment early in the planning process would better incorporate water quality needs within future projects. At this time, the pollutant of concern for the 303(d) listed water within the Study Area is not a CDOT roadway pollutant of concern.
- Depending on construction timing, a biologist should conduct preconstruction surveys of the Study Area to determine if any active nests and/or eagle roost sites or waters and wetlands of the US are present. These surveys should be conducted according to federal and state regulatory agency standards.



Design Considerations

- The eligibility of resources that would be 50 years or older at the time of impact would be determined through consultation with the State Historic Preservation Office.
- Depending on the funding source(s) secured for future roadway improvement projects, additional coordination and documentation may be needed for impacted recreational resources.
- Further information should be collected for the presence of any hazardous materials within a future project. If hazardous materials are found, all substances should be removed and disposed of properly according to the state of Colorado standards.

As projects begin design, a site visit should be conducted to field verify and formally identify environmental resources within the area (**Figure 19**). Design should avoid and minimize impacts to environmental resources. If future projects have federal funding, further environmental documentation and coordination would be required through NEPA.



What is 303(d) Listed Water?

According to the Clean Water Act, a 303(d) listed water are streams, rivers, or lakes which do not meet applicable state water quality standards.

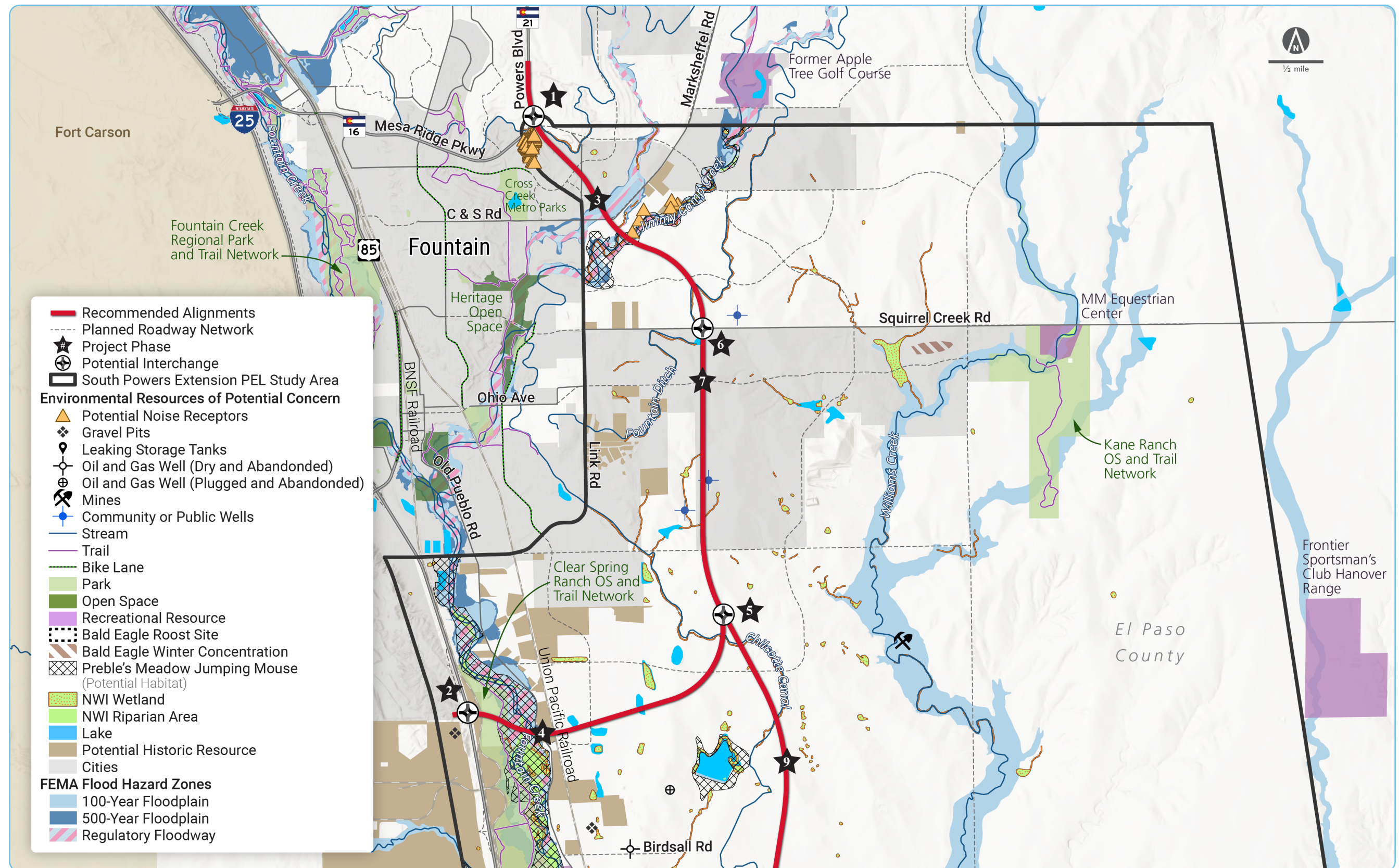
Table 7. Environmental Resources Present

Recommended Phasing Order	Location	Resources Present
1	Mesa Ridge Interchange	National Wetlands Inventory (NWI), potential wetland adjacent to residential properties (Noise)
2	MP 125.6 I-25 Interchange	Near Bald Eagle winter forage area and range, Clear Springs Ranch Park, NWI potential riparian areas, 303(d) listed stream
3	Mesa Ridge to Squirrel Creek Road	Crosses NWI Potential Wetlands, near Bald Eagle winter forage area and range, near proposed Jimmy Camp Creek Community Park, Crosses 303d listed stream twice, adjacent to residential properties (Noise)
4	I-25 MP 125.6 to Planned Roadway Network	Crosses one NWI Potential Wetland and one potential riparian area, near Bald Eagle winter forage area and range, near proposed unnamed community park, crosses a 303(d) list of impaired waters four times, adjacent to residential properties (Noise)
5	Planned Roadway Network Interchanges	Located over one NWI Potential Wetland, near proposed unnamed community park
6	Squirrel Creek Road Interchange	Located adjacent to one NWI Potential Wetland, located adjacent to one 303(d) listed lake
7	Squirrel Creek Road to Planned Roadway Network	Located adjacent to one NWI Potential Wetland and crosses two more, adjacent to proposed Kane Ranch Community Park, located adjacent to one 303(d) listed lake and crosses two 303(d) listed streams
8	MP 121.6 I-25 Interchange	Adjacent to potentially historic properties
9	Planned Roadway Network to I-25 MP 121.6	Adjacent to five NWI Potential Wetland areas, crosses Bald Eagle winter forage area and range, crosses one NWI potential riparian area, crosses two 303(d) listed streams, crosses through rural residential properties (Noise)



Design Considerations

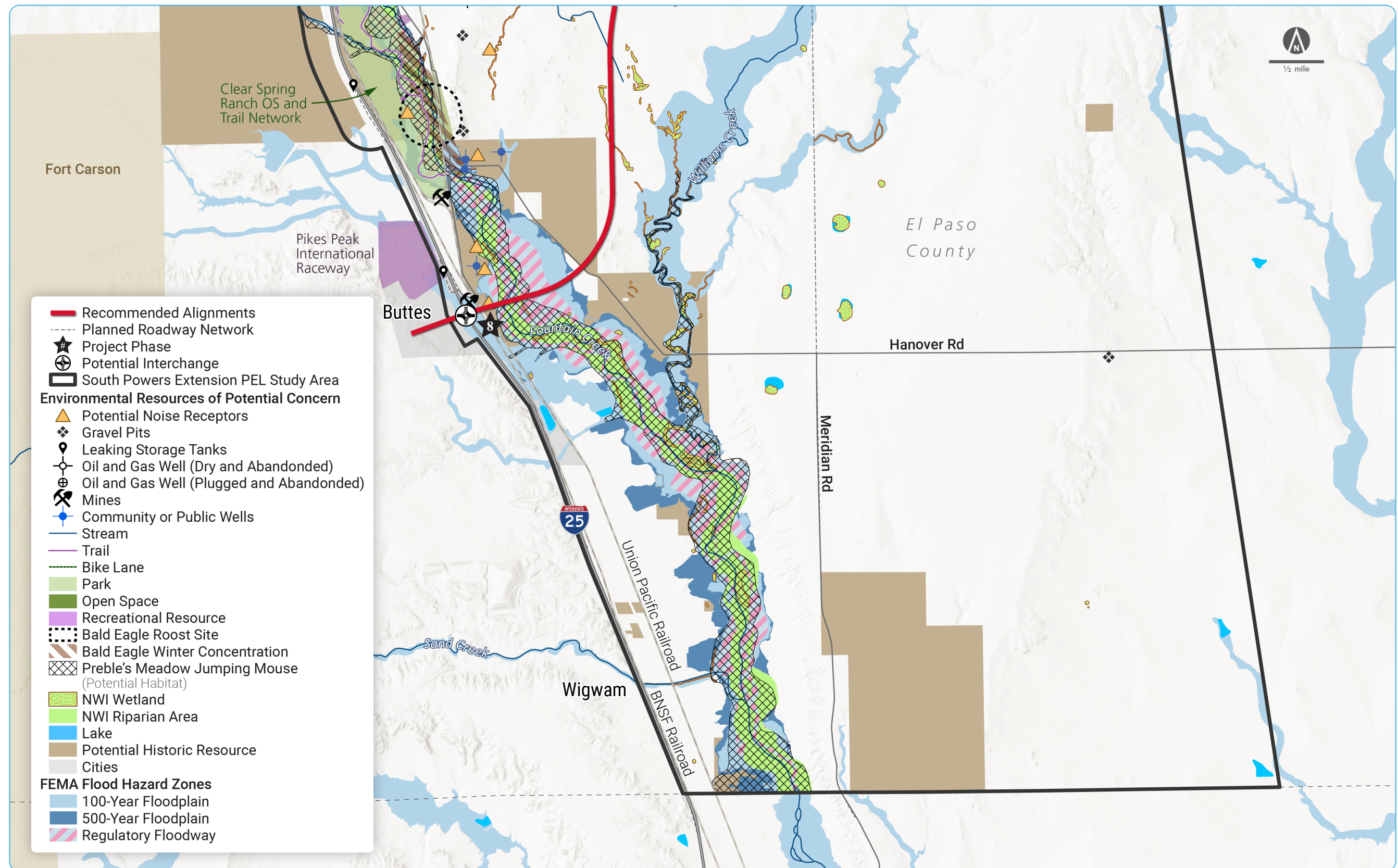
Figure 19a. Environmental Resources Map - North





Design Considerations

Figure 19b. Environmental Resources Map - South





6.2 - Corridor Design Considerations

As projects are identified and advanced to preliminary design, it is crucial to incorporate corridor elements that will provide both, efficient and flexible multimodal opportunities. The Corridor Preservation Footprint has been designed to allow opportunity for future design ideas and innovations aimed towards improving connectivity. This approach accommodates multiple mode options that are connected to the broader regional networks.

The corridor elements have the potential to be included within the Recommended Alignments E3 and H3. These corridor elements, with additional features in the following subsections, should be considered for future design as funding is identified and secured.

6.2.1 - Roadway

Opportunities for cost-effective, environmentally conscious methods have been identified that can be implemented during design and construction. Environmental considerations should be evaluated in all transportation design, including certain elements that work to negate impacts or improve the environment. These considerations also make grant opportunities more attractive to projects with incomplete funding. Examples of cost-effective ways to incorporate these types of environmental considerations include:

- Using construction methods and materials that reduce construction-related waste, such as using recycled materials when possible and practicing low-emission strategies during construction.
- Promoting alternative transportation modes/options to standard engine automobiles, such as including transit connections and improvements and/or electric vehicle charging technologies.
- Including energy developing technology within the Corridor, such as solar panels in the median, or as the road surface, or energy conducting roadways.
- Including flexible open space areas along the Corridor that may be used for future technology proven to reduce harmful roadway impacts.

6.2.2 - Technology

With increasing traffic volumes and congestion along adjacent roadways, the traditional capacity expansion solution to congestion management has proven that it cannot be the only solution. Effectively utilizing technology, in conjunction with roadway capacity expansion and interchange improvements, provides an opportunity to improve system wide safety, reliability, and efficiency beyond capacity expansions alone.

Transportation Technology (Active Traffic Management) – Active Traffic Management Systems use dynamic message signs over each lane of traffic to close lanes that are obstructed due to crashes and then direct vehicles to adjacent lanes to move traffic more efficiently past the crash. These systems have been shown to reduce delays and secondary crashes.

Traffic Signal Optimization – Techniques such as corridor wide signal timing and commercial vehicle signal priority would have the benefit of improving the flow of traffic and improving safety at interchange locations.

Travel Demand Management – Adaptive traffic signals can improve the flow of traffic along the Corridor by dynamically adjusting signal timing, coordination, and progression of vehicles based on the actual traffic demand along the Corridor.



6.2.3 - Development

Local plans and authorized developments approval have continued to advance the shared PUGA vision. El Paso County's Master Plan (*Your Master Plan*, 2021), the *City of Fountain Comprehensive Plan Update* (amended 2017), and the Colorado Springs Comprehensive Plan (*PlanCOS*, 2020) identify future land use near the SPE as Suburban Residential, a mix of Single-family Residential, Multifamily Residential, Regional Commercial Centers, and Central Mixed-Use, and Future Residential. These land use plans also identified the area as priority development areas, high-priority annexation areas, or areas of change. The plans reference Powers Boulevard and the surrounding area as having high growth. The City of Fountain Comprehensive Plan highlights the extension of Powers Boulevard as being critical for regional travel.

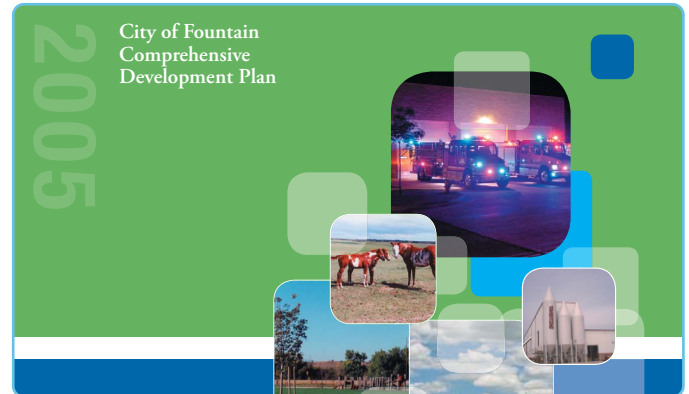
The *City of Fountain Annexation Plan* prioritizes the area south of Mesa Ridge Parkway for annexation to Fountain. Several large holdings, including Kane Ranch, Almagre, and Mesa Ridge, have already been annexed into Fountain. The authorized developments for these three parcels are characterized by mixed-use suburban land use, including residential and supporting commercial uses, consistent with the vision for the area. An Overall Development Plan (ODP) for development located just south of Mesa Ridge Parkway began the Fountain development review and annexation process in 2019. Due to concerns about the ability of Fountain to provide adequate water supply to over 10,000 planned dwelling units (and supporting commercial uses), alternative annexation of this area into Colorado Springs is currently underway. The approved ODP for the Mesa Ridge, Amara, and Kane Ranch parcels include dedication of an area for the planned SPE Recommended Alignment.

The Recommended Alignment E3 also connects to I-25 at MP 125.6, which is where the Southern Colorado Dual Service Rail Park is currently planned on the west side of I-25. This new rail park is planned to be a large development for the area and provide a multimodal freight connection between rail, truck, and air.

6.2.4 - Land Use

During the PEL Study, El Paso County and CDOT met to discuss development considerations and potential roadway impacts to adjacent land use. While CDOT does not have jurisdiction of local agency land use mapping, they have developed a list of outcomes for building a stronger relationship between local land use planning and statewide transportation systems. This list of land use outcomes includes:

- **Build Great Places for People:** The places we build can improve quality of life, economic vitality, health and wellness, and community inclusivity.
- **Location-Efficient Development:** Compact, walkable infill development supports lower development costs, efficient use of infrastructure, and local government fiscal health.



Plan Covers



- **Complete Neighborhoods:** Build downtowns and other neighborhood centers with a mix of uses (housing, commercial, schools, entertainment, parks, offices) in a walkable environment.
- **Housing Choices and Opportunity:** Affordability for Colorado's residents can be improved by encouraging "missing-middle" housing and locating residential density near jobs and transit.
- **A Complete, Connected Transportation System:** Integrate vehicles, transit, pedestrian, and bicycle infrastructure in a safe street network that enhances surrounding land uses.

In order to facilitate and accomplish these land use outcomes, local agencies have a menu of policy and planning implementation tools at their disposal, including:

- Downtown and corridor plans
- Zoning and development code updates
- Local policy responses that support infill housing
- Capital Improvement Planning
- Transit-Oriented Development and transportation demand management strategies
- Comprehensive and regional plans

Transportation planning and design teams must work to "meet communities where they are". This means that best practices should be tailored to meet unique circumstances and goals in every community (rural, rural resort, urban, suburban, etc.). Meanwhile, state agencies must provide the resources and capacity needed for every context.

6.2.5 - Transit, Bicycle/Pedestrian, and Freight

Transit

Previous local and regional planning efforts have observed multiple transit opportunities for this area, like the FRPR mentioned above.

As shown in the Alternatives Analysis process, alignments and typical section options were evaluated based on their opportunities to connect existing and proposed multimodal options in the area. The PMT also met with members of CDOT and Colorado Springs to discuss plans for transit south of Fountain. While there are currently no bus routes planned for this area, both representatives agreed that with the expected population growth, additional transit connectivity may be warranted in the future.

To date (2024), the location of this initial connection point has not been confirmed. If the current planned location is implemented, then the SPE corridor could provide vital connections between the planned developments southeast Fountain, I-25, and the FRPR station.

Bicycle and Pedestrian Facilities

In the recommendations of this PEL Study, additional spacing has been included in the typical section for the development of the planned SPE Trail which would run parallel to the roadway and in conjunction with existing and other proposed trails and recreational spaces in the area.





Freight

Motor Vehicle Freight

In the region, the majority of freight, whether based on weight (99.5 percent) or based on value (91.7 percent), is moved by truck (PPACG 2045 Moving Forward Plan, Chapter 12, Pg. 316). Current projections estimate that trucks would remain a dominant transportation mode for freight throughout Colorado over the next two decades. Trucking is expected to experience a large increase (71 percent growth) in tonnage transported by 2045 and an even larger increase (78 percent growth) in the value of freight moved by truck through the region. Trucking is also anticipated to remain dominant, while decreasing in mode share to 99.3 percent and 90.3 percent based on weight and value, respectively. This freight demand is likely to increase along with the expected increase in development and employment centers within and adjacent to the Study Area. With high freight traffic along adjacent corridors, the SPE is intended to provide additional truck freight connectivity and capacity to the freight network.

Air Freight and Air Passenger Travel

Air freight currently makes up 7.3 percent of the total freight based on value transported in the region. Current projections estimate that the air freight would increase slightly over the next two decades (PPACG 2045 Moving Forward Plan). The Colorado Springs Municipal Airport serves the region's air freight and is located north of the Study Area, adjacent to the Pikes Peak Innovation Park. Pikes Peak Innovation Park includes several aerospace industry facilities and an Amazon distribution complex. With the development of the SPE Recommended Alignment, improved accessibility and connectivity to air transportation facilities is anticipated. Increased accessibility to air freight and travel may shift existing motor vehicle freight to air freight, likely reducing roadway congestion.



Peak Innovation Park

6.3 - Redundancy and Resiliency

6.3.1 - Background



What is Resiliency?

The state of Colorado defines resilience as “the ability of communities to rebound, positively adapt to, or thrive amidst changing conditions or challenges—including human-caused and natural disasters—and to maintain quality of life, healthy growth, durable systems, economic vitality, and conservation of resources for present and future generations.”

For transportation systems, resiliency is the ability to keep our roads open and functional in the face of unexpected events and challenges. This can involve resilience of the assets themselves (e.g., the design and maintenance of bridges to withstand rare, yet catastrophic flood events), or adaptability of roadway operations (i.e., maintenance, planning, etc.) in the face of stressors and challenges.



While the concept of resilience is not limited to physical threats, this is the main focus of resilience work in transportation. Building resilience is like an insurance policy – by identifying a threat and implementing a mitigation measure, we can reduce the risk to our system in the future. Proactive management of threats before they occur minimizes the:

- Resources needed to rebuild and restore service.
- Disruptions to people's lives and to business activity.
- Cost to local agencies, CDOT, and the public.

National research on disaster damage and federal government spending suggests that every \$1 dollar spent on pre-disaster preparedness is worth \$6 dollars in terms of the future damage it mitigates.

6.3.2 - Resiliency Need

The SPE would provide an alternative route to I-25. In the past 20 years, traffic volumes along I-25 increased 58 percent, creating congestion from additional commuter and freight traffic. This congestion has decreased reliability along I-25. Previous planning and regional modeling identified the need for an alternative route to accommodate the movement of people, goods, and services. Additionally, an alternative route is critical for emergency response and military rapid deployment events. The rapidly increasing population surrounding the proposed corridor, along with the increasing rates of natural disasters and emergency response conditions, means the Corridor must be developed to withstand potential natural threats, such as fire and flood. Identifying potential resilient solutions to protect the proposed transportation assets would reduce the likelihood of severe damage in future natural disasters.

6.3.3 - Integrating Resiliency into the PEL Study Process

The PMT conducted a resilience assessment to identify the natural threats and associated risks to the major assets along the proposed Recommended Alignment. The major threats identified include wildfire and flooding. Evaluation criteria were developed to assist in the alternatives analysis. That evaluation criteria used during the alternatives analysis (**Appendix G**) focused on the big picture of resiliency, such as how it would benefit the overall corridor, structures, or alignment.

6.3.4 - Recommended Corridor Elements

The I-25 corridor has numerous existing assets, such as bridges and culverts, that are located adjacent to areas labeled "moderate to high wildfire risk". The SPE would be adding transportation networks in an area that exhibits lowest to no risk of wildfires to provide alternatives in case of natural disaster. However, high risks of flooding events associated with 100/500-year floodplains would remain the same. Thus, identifying roadway design elements that mitigate wildfire and flood risk is crucial for enhancing El Paso County's resiliency. The following design methods can be implemented in achieving this:

- Wide shoulders and clear zones along roadways to provide emergency vehicles space during evacuations and reduce the risk of roadside ignitions during dry, high wildfire risk conditions.
- Utilizing fire-resistant materials in roadway infrastructure such as bridges and culverts to prevent structural damage and maintain access routes during wildfires.
- Designing drainage systems that feature culverts and bridges that account for heavy rainfall and mitigate flooding to prevent road washouts and maintain connectivity during floods.
- Adding vegetative buffers and green infrastructure along road corridors, which can act as natural barriers against both wildfires and flooding by reducing erosion, slowing down fire spread, and absorbing excess water.



Public Involvement

- Introduction
- Project and Agency Coordination
- Public Engagement

7. Public Involvement

7.1 - Introduction

The SPE stakeholder and public engagement strategy was created to obtain input and provide information to diverse stakeholders with the realization that transportation projects affect stakeholders, property owners, community organizations, military installations, businesses, and travelers in different ways. The PEL Study created opportunities to exchange information with entities with varying levels of involvement. This included one-on-one and small group meetings with property owners, engaging local and resource agency representatives, and discussing with elected officials through the creation of an EOT and TT. All public information materials and public comment responses can be found in **Appendix H - Public Involvement Memo.**

7.2 - Project and Agency Coordination

Coordination with the partnering agencies throughout the PEL Study was crucial for informed decision-making throughout each of the processes mentioned above. The PMT collaborated with representatives of each agency who served on the PMT, TT, and/or EOT. Through these team's, representatives were given the opportunity to provide input, confirm agency support, and be kept informed of the PEL Study progress.



Public Meeting



7.2.1 - Resource Agency Coordination:

Agency contacts below received a letter via email on June 16, 2022 detailing the scope of the PEL Study. At the completion of the Existing Conditions Report (**Appendix D**), they were sent a copy for review and comment. Each of the agencies were also sent a final version of this PEL Study document. Any further comments from the agencies would be addressed during NEPA.

- Agroforestry Project
- CDOT/Colorado Department of Public Health and Environment (CDPHE) Liaison
- CDPHE Air Quality Division
- CDPHE EPS Oil and Gas Liaison
- CDPHE Hazardous Materials
- CDPHE Solid Waste
- CDPHE Water Quality Control Division
- CDPHE Water Quality Control Division (Permits Section)
- Clean Water Coalition
- Colorado Parks & Wildlife
- EPA NEPA Transportation Sector
- Federal Emergency Management Agency
- National Resources Conservation Service
- State Historic Preservation Officer
- US Army Corps of Engineers
- US Environmental Protection Agency
- US Fish and Wildlife Service

Comments from the EPA, CPW, and USFWS were received in May 2023. A majority of comments were received by the EPA, and an individual meeting was held on May 22, 2023 to discuss the comments and how they should be addressed. These comments can be found in **Appendix H - Attachment 1**. All comments received were incorporated into the Alternatives Development process and PEL recommendations.

7.2.2 - Stakeholder Group

A Stakeholder Group was identified early in the PEL Study and solicited for feedback at PEL study milestones. Understanding the pressure of competing land uses, new developments and annexations, and differing community objectives helped to define the needs and priorities along the Corridor. During the first meeting, members of the PMT met with stakeholders to understand their concerns and how improvements can accommodate and support the safety, mobility, resiliency, access, land use, and aesthetic goals. The final PEL Study alignment recommendations were presented to the Stakeholder Group during the second of the two meetings for their feedback.

An initial letter certified April 21, 2022, requested that property owners contact the PMT and arrange a one-on-one meeting so that the PMT could provide an overview of the PEL study and the Alternatives Development and Analysis process and to answer any questions the property owners may have had. A second letter mailed September 21, 2023, requested that property owners contact the PMT for a second round of one-on-one meetings to discuss the Recommended Alignments in relation to stakeholder properties.

- May 11 and 12, 2022: Initial meetings with 21 separate property owners to discuss the Study in relation to their properties as well as the PEL Study goals, process, and schedule.
- February 8, 2023: Meeting with property owners along Furlong Circle, Fountain to obtain their input on the narrowed list of corridor alignments.
- October 11, 12, and 18, 2023: Meetings to review the Recommended Alignment and obtain property owner feedback.
- October 18, 2023: Meeting with Cherry Creek Farm Neighborhood Group, Fountain, to review the Recommended Alignment and obtain their feedback.
- October 18, 2023: Meeting with individual property owner to review the Recommended Alignment and obtain property owner feedback.
- November 2, 2023: Meeting with individual property owner to review the Recommended Alignment and obtain property owner feedback.



7.3 - Public Engagement

The public was engaged at various times and through different platforms of hybrid outreach that included virtual/in-person Open Houses, mailers, social media posts, one-on-one meetings, focus group meetings, and an interactive project website supported by comment forms and a pinpoint comment map. Outreach was continuous throughout the PEL Study to reach as many of the public, property owners, and stakeholders along the Corridor. The public was updated at important PEL Study milestones identified by the PMT through various general communication methods and public meetings.

7.3.1 - General Communications

Communication Tools: The following communications tools were used to promote the second virtual Public Open House:

- Project website: The Virtual Public Open House was live on the Project website from January 25 – February 19, 2024.
- E-newsletters: with links to the virtual public open house also described the study, Existing Conditions Report, and timeline were distributed a total of 4 times during this period to the list of email addresses in the database (as of completion of the Public Engagement process in March 2024).
- News release: was distributed by the El Paso County Public Information Office to local news media resulting in numerous news stories in local media outlets about the virtual public open house and comment period.
- Communication materials and Project Fact Sheet: were distributed to various community organizations for inclusion in their communications channels to their constituents.
- Social media posts and news releases were provided to project partner agencies of El Paso County, Fountain, Colorado Springs, CDOT, PPACG, and to the Stakeholder Group to distribute through their communication channels.

7.3.2 - Open Houses:

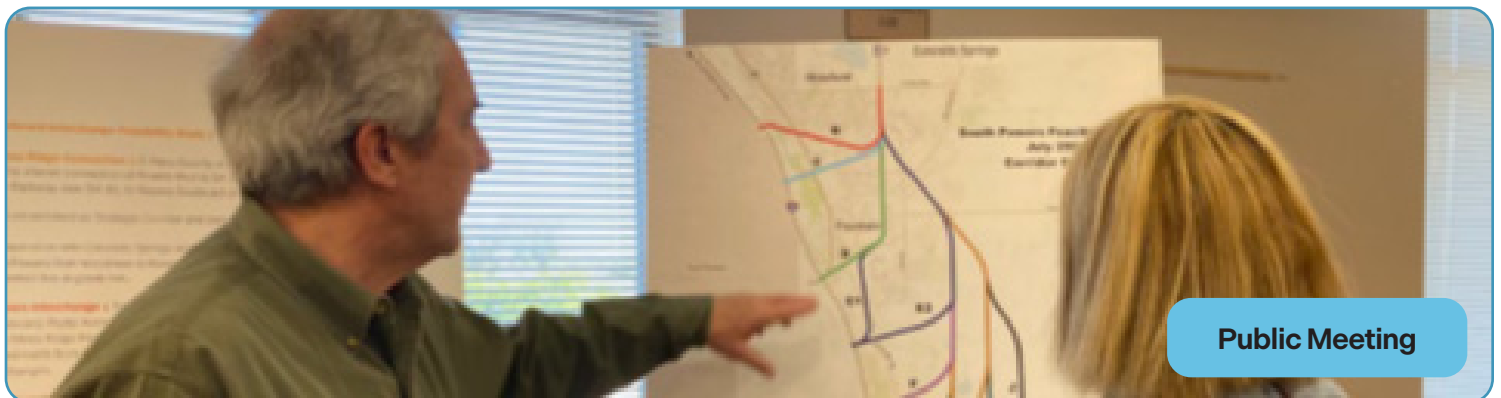
Open House # 1

Both an in-person and a virtual open house option were provided with the intent to enable broader public participation.

The goals of this public engagement were to:

- Inform the public about the PEL study
- Review the Vision for the Corridor and the reason for the project
- Review the existing conditions of the area
- Collect comments or questions
- Collect public input to help shape recommendations for the Corridor

The in-person Public Open House had approximately 50 citizens attend. The Open House was held from 5:30 – 7 p.m., Wednesday, May 25, 2022, at the Fountain City Hall (116 South Main Street, Fountain, Colorado 80817).





The Virtual Public Open House remained live on the project website for a three-week period, May 25, 2022 through June 15, 2022. The public had the opportunity to review the virtual display boards and to post comments either geographically on the Interactive Comment Map or in the Virtual Public Open House Comment Form.

Open House #2

The second Public Open House was virtual-only to enable wider public participation for a longer duration of reviewing the PEL Study materials and provide comment. The promotion of this event involved outreach to residents and property owners located along the Recommended Alignments; including additional outreach efforts to disadvantaged communities, stakeholders, and the public.

The goals of this second Virtual Public Open House included:

- Inform the public about the status of the PEL Study, the Vision for the Corridor and the Reason for the PEL Study from the Study
- Inform the public about the resulting recommendations
- Collect comments and/or questions
- Collect public input for the final PEL Study report

The second Virtual Public Open House remained open for public comment on the project website from January 25, 2024 through February 19, 2024, for the public to review the virtual display boards and to post comments either geographically on the Interactive Comment Map or in the Virtual Public Open House Comment Form. Further information on public involvement can be found in **Appendix H – Public Involvement Memo.**

Public Comments Received

Generally, most of the comments submitted were from self-identified property owners with properties located along the shorter term (E3) and longer term (H3) Recommended Alignments. Many expressed a desire to not have a new road near their properties due to the impact on residences, agricultural farms, and businesses. Of the comments submitted, there was an even split of those that prefer one section of the alignment over the other, depending on the location of their property.